

# **Commedia Leonardi Vici**

**the Leonardo Trilogy**

**by Max Herman**

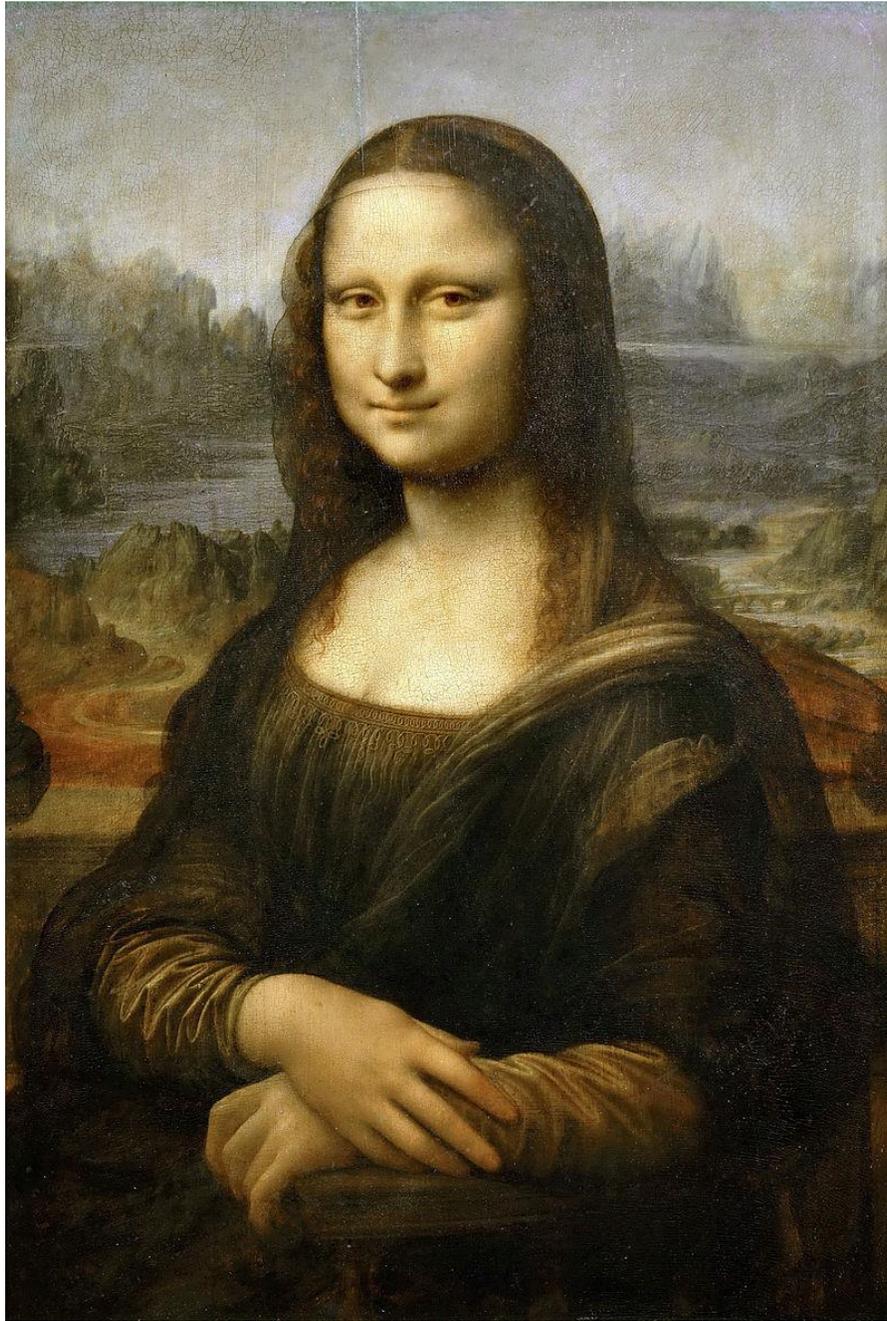
**Book I:** The Mindful Mona Lisa

**Book II:** Experience and Fortune's Garment

**Book III:** River and Bridge

# The Mindful Mona Lisa

Leonardo's Vision of Experience



*by Max Herman*

for Minnesota and my family

## Acknowledgements

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[Apologies for typos and omissions in PDF draft 11/1/2022 – MH]

## Foreword

This book is based on a series of web logs written for the MIT Press Leonardo journal during the pandemic of 2020, roughly May through October, on an array of topics revolving around the *Mona Lisa* but ranging with a fairly elliptical and sometimes eccentric set of orbits.

My intent is not to be vague, but rather to notice aspects of things which I have not always been conscientious enough to notice and therefore are sometimes elusive to me. Please take everything here with a grain of salt, and in the spirit of poetic license. As many references as possible will be included in the endnotes for those who wish to corroborate and cross-check the more outlandish speculations.

The structure is quite simple, in which each chapter includes the original web log, an essay based somewhat on its subject, and a graphic produced in sequence on the day the essay was first drafted. Editing has been as minimal as possible, another act of presumption for which I fervently hope the reader can both forgive and feel some degree of sympathy with the author if only at intervals of an unpredictable nature and timing.

A word of caution: what follows is based on the author's experience of looking at the *Mona Lisa* mindfully for five minutes with no preconception of what to see. If you wish to do this before reading further, I recommend it!

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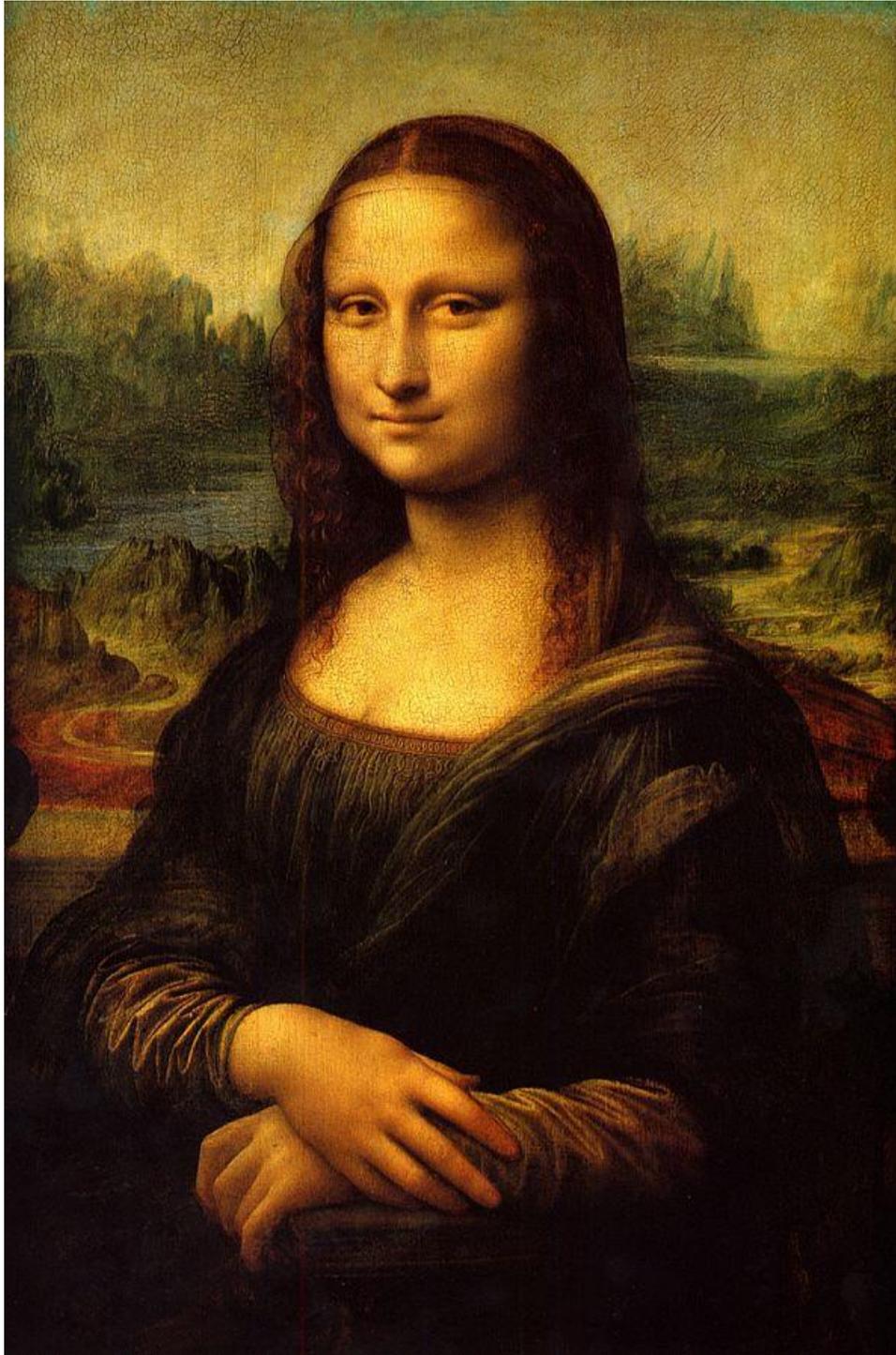
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Web log 1

## The Mindful Mona Lisa: a Bridge-Garment-Experience Hypothesis

By Max Herman  
Thursday, 05/14/2020



IN the summer of 2019 I made up my mind to understand the Mona Lisa. I had visited Florence for the first time that year, and felt a debt of gratitude to the great artist-scientist.

Eventually my thinking arrived at the "bridge-garment-experience hypothesis" (BGE), which states that the bridge by the sitter's left shoulder represents the historical progress, since primordial time to the present day, of human art, science, and engineering. This bridge "flows" into the vortex-shape of the sitter's shawl, "weaving" a garment of the accrued works and technologies of the present time (ours or Leonardo's).

But this garment, these robes so to speak, are the servants of the sitter, who embodies human experience. She is the discoverer and creator, not vice versa; the garment is appreciated for its usefulness but not valued above the person within. And by sharing powerful eye contact, with intersubjective mindfulness and proprioception aided by mirror neurons, viewers experience that we too each have this ability ourselves.

To substantiate this theory in a series of blogs, I will rely mainly on the painting itself, Leonardo's notebooks, and some basic facts from Leonardo's biography.

Leonardo produced numerous designs for bridges, including one for the largest bridge in the world. Mainstream scholarship of the Codex Leicester acknowledges that the vortex is one of the most important water-forms of all to Leonardo, eroding riverbanks like the Arno's, and the curling form of the sitter's hair is often viewed as suggesting a vortex. Leonardo designed clothing for the Medicis, and invented a machine for producing yarn around the time he painted the Mona Lisa.

Yet most convincingly, Leonardo himself wrote in his notebooks: "I am fully aware that the fact of my not being a lettered man may cause certain arrogant persons to think that they may with reason censure me, alleging that I am a man without letters. Foolish folk! Do they not know that I may retort by saying, as did Marius to the Roman patricians: 'They who themselves go adorned in the labour of others will not permit me my own?' They will say that, because of my lack of book learning, I cannot properly express what I desire to expound upon. Do they know that my subjects are based on experience rather than the words of others? And experience has been the mistress of those who wrote well. And so, as mistress, I will acknowledge her and, in every case, I will give her as evidence."

The Mona Lisa is this witness, in all cases and for all time.

I have spoken with many Leonardo experts who have confirmed that this is an original interpretation. (The only comparable suggestion I have found is from Robert Zwijnenberg, who suggested in 2012 that the bridge is a “carbuncle on the painting” which connects the background to the sitter.) If true, it could be relevant for many challenges facing the world today.

I dedicate this hypothesis to Leonardo, Firenze itself, my wife Emily, my parents and siblings, Hippocrates, Minneapolis, and Italo Calvino’s *Six Memos for the Next Millennium*. Discuss! 😊

## Essay 1: 10/30/2020

I am going to try to be as honest as possible in these essays. However there will be times when I either cannot or prefer not to be what a reasonable observer might consider to be fully honest. This is an attempt and a fault for which I ask the reader's patient grace in advance, and ideally the grace of fortune as well because sometimes luck or chance is the most relevant factor in any course of events.

The honesty that will be most difficult for me – well let's not dwell on that. The honesty that will be easy for me is to say things like "I have never really studied art history very much, I took one class in college, and have no degree." My belief that I have been the first person, as of November of 2019, to understand what the *Mona Lisa* is about must be taken then to be completely absurd, impossible, unfathomable. The idea about the bridge more or less just popped into my head while I was looking at the *Mona Lisa* for five minutes on an airplane ride. Actually it was August 2019, or July? Goodness my memory has been, I think, fried to an extent by the enclosure of the current pandemic. It was August, July was the vacation before, in 2019 July I was up north here in Minnesota, and I first wrote about it on the internet in November.

Frankly the idea just seemed to make sense at the time, to see the bridge as a metaphor for art, science, engineering, the things we make with our specially exponential human techniques. On the very same flight I was reading Italo Calvino's last book, a will and testament of sorts one could argue, *Six Memos for the Next Millennium*, and in that book Calvino explains what he sees as a poet's mind (poetic imagination) at work in Leonardo's short poem, from one of the notebooks, about a sea monster. So, I was inclined to think of Leonardo as a user of

metaphor, and certainly, since my actual degrees (just a B.A. and an M.A.) are in English, this probably served as the original impetus for my interest in Leonardo and could therefore have been the most ill-fated and ill-conceived of interests. Who knows. Be that as it may, pondering the famous image on that flight that August August wasn't the work of a pro. It was strictly amateur as they say, mainly done only out of mild traveler's discomfort at the Louvre having been closed the day we planned to visit in May of 2019.

Knowledge of Leonardo's 500<sup>th</sup> anniversary celebration seems, in memory, to have come to me from the side of a bus somewhere in Europe in May or early June of 2019. One hears now and then of anniversaries for famous figures, and I may have known it was coming up, or had recently passed, but I didn't know it was actually happening until being on European soil. It was most likely Paris, because that was where we landed from Minnesota.

Figuring out the meaning of the *Mona Lisa* would really mean a lot to me. It's not easy to explain why. Of course one could say, "you told me every moment of every waking day that I should work hard and one day become a genius, and now there's no such thing as a genius?" In other words, it's a confusing set of messages one gets as a white male person in the United States who likes art, books, puzzles, science stuff, quiz games, and the like. Maybe certain expectations just soak into a person like osmosis. There is an assumption at a certain age that one day, one will figure out the *Mona Lisa* and publish one's solution in some kind of publication. Not that people tell you this out loud. It's assumed. There shall be no stone unturned.

Yet we all know that things fall to the wayside, or as has been said, “what falls from the cart is lost.” Why bother with anything like figuring out the *Mona Lisa*? One reason may be the utter absence of any explanations that really make a lot of sense. Of course perhaps it is meant to be a sphinx of a painting; but even a sphinx has a riddle and the riddle has an answer. Why does Oedipus, the key ingredient in every novel, bother to answer, and then get so very proud of himself when he does? Who knows. It could be a million reasons. Yet, people do try to “answer the moment” quite a lot. Perhaps it is a primate game we have played since before we were even humans – who can find the acorns? Who can get the fish out of the water? Or maybe even something more serious -- who can make fire. Who can make tools, or do things with those tools. It could just be a dopamine path we acquired along the way.

Then there is the wish for fame, what Milton called so nicely “that last infirmity of noble mind,” in what poem I forget. *Paradise Lost*? “Lycidas”? “Lycidas” is one of my favorites so I feel I should know if it’s there. I know that “Lycidas” includes the line “then slits the thin-spun life, but not the praise, Phoebus replied, tilting his westering wheel, Fame is no plant that grows in mortal soil, or in the glistening foil set off to th’world, it lives and spreads aloft by those pure eyes of all-seeing Jove, of so much joy in Heaven expect thy meed.” A very truculent and distended recollection of course, but it reminds me somewhat – “to scorn delights, and live laborious days;” “Fame is the spur that the clear spirit doth raise, that last infirmity of noble mind,” this I think must of certainty be from my loved “Lycidas.”

To scorn delights, and live laborious days, for fame, which seems to me to mean to me people loving you, wanting to be your sweetie, and having a lot of money perhaps, being on people’s minds. Having a role in the family of persons and personages that make up the village,

town, city, country, planet. A basic urge, perhaps, or on the other hand it could be a displaced deficiency. I was always, it seemed to me, missing out, operating a tad too slowly, seeing school years pass by without the dreamed-of love affair coming true, the sweet golden victory of racquet or winged Mercurial feet, the Marshall Stack so to speak, or any of a number of other grand dreams. This would make my urge to explain the *Mona Lisa* a kind of mid-life crisis (and I am at mid-life, more or less exactly or so I like to think).

Still, that day on the plane I wasn't feeling particularly compulsive or vain, harried, or that I was a nobody, a failure; it was a pretty normal day and I felt pretty OK. I was enjoying reading the Calvino of course, a book that after several years of putting hopes of writing a decent book someday into cold storage to make time for a job training degree had me thinking about doing some kind of a book or project, but I wasn't particularly driven to even think about Leonardo. *Six Memos* isn't really that kind of a book, it's more like a stroll in a nice historic library by a tour guide who is fairly relaxed and funny, a bit impish, who you can tell has had fun reading a lot of these books. I had a little curiosity about Leonardo that day on the airplane, yes, but mostly I had an odd feeling of something like sympathy for Leonardo. It was almost as if he was a live person, sitting a few rows over on the plane, who had really tried hard at something and people wouldn't even look at it. They wouldn't talk about it. They would fly thousands of miles in a crazy aluminum tube flown by computers but they wouldn't even see the painting. Couldn't, or wouldn't, who can say.

So it was mainly a sense of owing something. I felt that maybe the painting had not been, as they say, done justice. It's strange but I can't remember what kind of a reproduction I was looking at on that plane – perhaps a postcard – but for some reason I had the idea

something like “well the least I can do is look at the painting for five minutes, and not rant and rave about whatever I might think, but just look at it, for five minutes literally, and breathe or meditate a little first so that it really counts as being there.”

It doesn't seem quite certain that I was doing this little five-minute exercise out of an altruistic sense of respect for an ignored Leonardo. Yet the memory of that plane flight is rather clear in my mind, at least not totally unclear. I felt Leonardo had been wronged, and it was my job at least to try to right the wrong, investing at least five solid minutes of showing respect for his painting. It could be that I was trying to expiate my own feeling of disrespect for Leonardo, or for the whole world, for all other people and all they strive to do to make life count and make it worthwhile. In other words, to try to respect my own time that I have on this planet, perhaps. Yet it wasn't only that. It was to a great extent also the poem Calvino talked about, really a fantastic discussion of a fantastic poem. The idea that Leonardo wrote a poem like that got me interested – that was the core interest, maybe. That and having seen an exhibit in the basement of the Galileo Museum called “Leonardo's Books” in June 2019, and bought museum-shop copies of *Leonardo's Books* and the *Codex Leicester*, and reading the *Codex Leicester* along with the *Six Memos* on that trip in August at the same time as the *Six Memos*, literally both side by side on my airplane tray table; I took a photo.

I guess it's a little bit honest to say that I cared about the *Mona Lisa* on that airplane ride partly because of Calvino, partly because of a variety of hunches unbeknownst to me, partly because of Leonardo's poem, and partly because of the *Codex Leicester* and the Louvre being closed, with the remaining causes of which there are certainly at least some being what you could call “all my personal issues.” Another one is just airplane claustrophobia, or restlessness,

“I need to do something to pass this flight” like stretching your legs to abate a headache. There was definitely a headache involved, or an incipient one, that made me dread just reading, or looking at my phone, or watching a video.

Randomness and chance are probably always involved and mixed in with the other more lucid causes, but I have recently come to believe more that randomness has its logic and form as well. You throw enough answers at a set of questions and eventually some will stick, and once they stick they don't instantly un-stick. Who knows why we get curious about certain things, or try to dot certain I's and cross certain T's. One cause is perhaps the need to retrace one's steps from time to time, even just to ask “what did I even do today?” In college during a rather lonely spell I developed a habit of recounting in my mind, by imagination only, with closed eyes, everywhere that I had walked during the whole day. It was pretty relaxing and honestly might have been my first real experience of meditation. I would also lie on the floor in corpse pose during that year (not knowing at the time what corpse pose was), not getting much relief from falling asleep in bed – I was also copying out Shelley's “Adonais” long-hand then, having read that Norman Mailer did that with *War and Peace* at the advice, I think, of a Russian writing coach – so laying on the floor on my back and letting the dusk get dimmer and dimmer outside the dormitory window was actually quite nice.

If we don't know where we are, maybe it's just as simple a thing as retracing our steps. I learned last week about a thing called “chiastic structure,” which is a thing in anatomy, music, and literature, where there is an A-B-B'-A' pattern. It's called an X pattern (chi in the Greek alphabet) because if you show the letters in two lines like a square the letters are on diagonals. It's also called a ring pattern, because you go back to where you started. I feel a bit sheepish I

never learned about it until literally five days ago, and I only heard of it because I was reading the novel *Less* by Andrew Sean Greer, in which the protagonist loses a ring, and I wanted to find literary precedents and typed “meaning of lost ring in literature” into an internet search. I don’t know if the backward-loop thing is relevant or a red herring, but it’s the topic of the last blog in this book and I wanted to mention it in this first essay just to get it out of the way.

All done, for this installment! I can rest now. Thank you for reading this far, and I hope I can imagine some words of use and benefit going forward.

Graphic 1: 10/30/2020



Web log 2

## The Mindful Mona Lisa: Expert Evidence

By Max Herman  
Thursday, 05/21/2020



[This is the second of a series of blogs on “[The Mindful Mona Lisa.](#)”]

IT was during a five-minute mindful viewing of the *Mona Lisa*, which I did in July 2019 to honor Leonardo’s 500<sup>th</sup> anniversary year, that a novel interpretation of the painting first took form. During those five minutes it appeared to me that the bridge flowed into the garment, returning my eye from the background to the foreground by connecting them spatially and thematically. This completed the cycles of the painting in an aesthetically rich and balanced resolution.

Knowing this might have been an absurd daydream, I wrote down my impressions to compare them to existing scholarship.

Here are three references I have found that to my surprise confirmed key elements of what I saw:

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"Leonardo's magical landscape of fluid and structural transformations finds its echoes in the sitter and her costume. Lisa's hair obeys the water principle of flow.... The very fine cloth of Lisa's costume adopts analogous patterns of flow -- spiral in the case of the stole over her left shoulder and cascading in little rivulets below her neckline. These are analogous to the coursing fluids that vivify the woman's body. Leonardo could not but have projected his knowledge of the inner into the description of the outer."

[Martin Kemp of Oxford University, from his 2017 book *Mona Lisa*, video [here](#).]

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"Zwijnenberg admits to feeling uneasy before the *Mona Lisa*, feeling that something is not right: the bridge in the right landscape, which 'is a carbuncle disfiguring the painting'. The landscape is connected with the sitter only by the bridge; there is no other sign of human activity. Mona Lisa is a microcosm within the macrocosm of the landscape; the bridge 'bridges' the microcosm and the macrocosm...."

[The Leonardo da Vinci Society Newsletter number 39, p. 9, from 2012, link [here](#).]

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"Leonardo considered the ... mechanics of fluids... [writing that] 'The great weight of the boat that passes through the river supported from the arc of the bridge, does not increase the weight to the bridge, because the boat weighs precisely, how much the weight of the water that such boat drives away from its place.' Similar...investigations had accompanied also his grandiose plan to realize...at the confluence of the Main Channel into the Arno and at a very short distance from the Bridge of Buriano, subsequently consecrated for its symbolic valence in the background of the *Mona Lisa* and of the *Virgin with the Yarn Winder*, a work of high engineering: a bridge-channel, that might ... put in communication the two water courses...."

[Carlo Starnazzi, *Leonardo from Tuscany to the Loire*, p. 24, 2008.]

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In a painting that so clearly interweaves a fabric of both images and ideas regarding water, geology, and slow processes of time, is it wise to reject outright any symbolic or thematic meaning for the bridge, and its visual role in the composition? If not, even hypothetically, it is worth asking if the meanings of the bridge and the spiral shawl could be related.

Next week: full details on how to do your own five-minute mindful viewing of the *Mona Lisa*! Till then, #TheMindfulMonaLisa and #TheBridgeGarmentExperienceHypothesis 😊

Essay 2: 10/31/2020

Today the Mississippi river was an especially enjoyable place for a walk. I began by walking from my car to the parking payment machine, paying for parking, then walking back to my car to put the ticket on the dash, which is no longer necessary, but I do it anyway. Perhaps out of nostalgia and devotion to the memory of all the wonderful walks I have taken there, been given, including with both of the lovely dogs who have deigned to be my friends, both now passed, since around 2002. I left the ticket on the dashboard and walked across the playing field, filled by frisbee enthusiasts and a group of soccer players who used small hemispherical blaze orange nets so that everyone could not be goalie. The sense of Covid-19 breath swirling all over the field was a kind of visuospatial sense, eliciting vague waves of drifting anger and bitterness, but I merely observed this and moved on.

Down by the water's side is where the marvels truly began in earnest. The cottonwood leaves seem to be the last to fall this year and have blanketed the ground in yellow, tan, and pale green mosaic. I just love these leaves every year, and even during the year (in two of my favorite places to walk) they make a beneficent rustling chorus of waves. Already quite happy to see these leaves, and relishing the thought of the rocks, sand, and river, I reminded myself to attend to my breathing and the plain sense of walking. Avoiding thinking and inner rhetoric by intention, I decided that noticing visuals and sounds was OK for this attempt at meditative walking, which is for a variety of reasons different from regular walking. I only know what every average layperson knows about this, however.

Touching and picking up objects I also deemed just fine, mostly because I saw a great branch of cottonwood, too slight for a true walking stick, more like a quill, but of a proper size and just too glowing there on the path to leave unexperienced. I picked it up and dragged it behind me kind of like a string, it being too fragile to bear any weight.

When I got to the limestone rocks which are so marvelous in this area, the Mississippi River gorge, a national or state park and undeniable gem of nature's glory amidst the high-tech teaching hospitals and far below the hum of the interstate, a new activity began, namely, to walk out into the water by stepping from stone to stone. This limestone is highly stratified like pages in a book, with little plants and bits of rock and twigs between the pages. But even before walking out on them I noticed a little raft of cottonwood leaves kind of hovering in the water, amid the reflected sun beams from the other side of the river. There is a line of turbulence stretching downstream a few meters from the stone outcroppings so the leaves gather there, suspended, waiting almost. I had picked up a pocketful of leaves to take home, which for better or worse I decided not to do, and after gazing around a lot at various water, wind, branches, and plants I tossed the leaves in the river to watch them float into the turbulence. Before that I had followed the path of a very nice yellow cottonwood leaf, gold really, torn in half but very perfect in its way, as it floated a winding path among the little islands of the outcrop.

There are far too many details to mention – the sound of the geese, the couple in a red canoe, my risky plan of walking along too narrow a strip of rock which was canceled because of a fear of falling in, though I actually wanted to fall in because natural water always makes me want to swim as if my body is thirsty for contact with the fresh flowing water. Being quotidian

today I backed away from the narrow line of pages and did a kind of leap-twist to get back on a more planar area and walked down to follow the leaves. A few steps downstream it was clear, clear as clear can be, that a lot of cottonwood leaves were flowing upstream in this area. It was a great relief to see them doing this, almost like grazing sheep or paddling ducklings.

After a while watching the wind on the water, which made its own interesting waves and swirls amid the whorls of the turbulent line, I began walking sideways like a crab along the water's edge as closely as I could without getting wet. I wanted to find a brick I had left in the water back in June, from an art project I do each summer on the solstice of setting a lot of bricks in a circle along this stretch of river. That started in June of 2018, and was named after Calvino, kind of a brick-literature-millstone idea for celebrating the solstice or "sun-stop." I put the brick in the water and was walking crabwise to try to see it, but the water was likely too high which gave me the very helpful and pleasant impression that I would need to look for it next June when the water and the rains and soil saturation are more suitable.

Walking sideways was very, very pleasant, I can't say exactly why, something about following the horizontal horizon of where the water met the sand. It's also very lovely I think to see the pebbles and sand or whatever is along the bottom through a thin layer of water, either muted on cloudy days or sparkling like clear glass in the sun. Today had both, but before long I got to a tree which had fallen from the bank into the river and had to be negotiated. It was here during my last walk about a week ago so I knew exactly that all I had to do was crouch a little and walk under a certain gap in the branches, which is somewhat like a walking ut-katasana or chair pose in yoga. Yet today I noticed the last few grapes on a twisting grape vine, the kind that has bark like shredded brown paper, and which are actually for children strong

enough to swing from even though it cracks off a lot of small branches and makes a racket. Yet one can do worse than be a swinger of birches. So, the purple color, light and matte where the grape was untouched and dark and shiny elsewhere, seemed important to look at a bit lingeringly which I did; but even more so it seem important to eat the grape – one, or two, or all on the sparse bunch? Was it safe, were they really grapes? – just one, and not tossing it down the hatch but holding it between thumb and forefinger and halving it along its equator with my two front teeth upper and lower. It didn't separate, but in a few seconds I could taste the bitterness of the peel and then enjoyed waiting for the real splendor, and it is splendor, of the juice, half-expecting something terrifying and toxic like nightshade or buckthorn to intrude upon the reverie. It did not. The flavor was frankly miraculous, is the word that occurred to me, the taste being as vast as the entire landscape and all its terrible history and despite its horrifying damages. Maybe it was just a little message. I looked down, enjoying the mosaic of leaves and water, and found what looked like a jet-black stone of perfect form. I picked it up and noticed the purple of grape juice on the tip of my thumb next to the black object from the water. It was a bit of waterlogged wood, but geometric, maybe from part of a burnt log? I decided to keep it.

Proceeding along under the fallen tree I happened upon a lovely flat of sand which anyone who sees it is instantly transformed by. It is just a perfect flat of sand extending downstream from the base of a large cottonwood tree, but it reaches a good twenty feet inland like a platform. There are usually quite a few goose tracks there so I was looking for those, enjoying the spacious plane of the light fine sand, and noticed there were a lot of cottonwood twigs scattered about of about one foot in length. They were easy to lift and toss with the end

of my so-called walking quill, so I did this, having gotten some of that urge to not just walk in but play in the forest by the river which I think may have once or more than once left an impression on the famous poet of the Romantic Period, William Wordsworth, one well deserving of praise chosen for time and affection. So I tossed the twigs about, as I might do if trying to play with my cat who has been very interested in slender fronds from a bouquet I bought recently at the grocery store. He has a dry one which has taken a spiral form, and a still-green one which is a crescent. These were the same shapes of the cottonwood twigs on the flat page of sand. The two forms – S and C – combined almost as if drawn in various pairs; two C's making a circle, an S and a C making an eye, two S's making a braid. It was just too fantastic, almost exactly like a page of sketched studies made for whatever reason. Two S's on end made a perfect sine wave.

It is certainly a bit compulsive of me to notice these phenomena this way. Pandemic confinement is one contributing cause, and perhaps trying to meditate on a walk but not really being able to do so very well, but I had never noticed anything like this there before and it was just well noticeable. I could have taken pictures, but left my phone and its embedded camera at home on purpose. Should I go back and take pictures? I don't think so. Some of the S's were crossed, and one x-shape was of an S and a C. I just liked it, this little tableau.

A friend once told me, well a former friend, due to my bad behavior and his inability to appreciate the heights of humor, that one should never write about the events of a day or of a walk. I'm not sure if that is completely binding though. Wallace Stevens is a reasonable poet and "A Snow Man," sent to me this past week by a non-former acquaintance with whom I am on a friendly conversational basis by email from time to time, seems kind of like "what I noticed

on a walk one day.” Still, why would a reader about the *Mona Lisa* care to hear about all these cottonwood-twig math symbols on a prone refrigerator door of silky taupe Mississippi silt trod upon by Canadian geese? Almost indubitably they would not. Therefore it can be dropped, this image of sand and symbols.

After the flat expanse one has to walk in the grass along the banks which of course is a fabulous transition. The goldenrod and milkweed are four feet high, like welcoming hosts to the strolling visitor whose feet are welcomed by the great sprite-woven carpet of the alluvial forest floor, all the more exciting in October like today when they barely look like themselves any more. The milkweed, which I used to pick to feed to the larvae of monarch butterflies in a local laboratory as a youth, has no leaves really just the pods on top. Picking milkweed pods is of course a tremendous experience for kids, and I figured that because proprioception is potentially related to meditation it would be OK and not belaboring the point to pick one of the pods. It was yellowing and had split along one side not long ago to reveal the dark brown seeds and white silk still nicely arrayed within like the scales of a magic carp. In the seventies, we used to catch quite a few carp in this park, an almost cylindrical and hefty fish which is disregarded by anglers of the region but regarded as a Christmas delicacy in Eastern Europe with excellent reason I’m sure, now. I kept the pod because it matched the black driftwood.

There were many more pods more opened, with the silk dried and fluttering atop the plants ready to be on their way, similar to cottonwood cotton though the latter has a tiny white seed like a grain of rice or an apostrophe. A feeling of gratitude had really submerged me by that time which was quite unavoidable, and knowing I had to be somewhere and that a half hour was up I walked a bit more amid the sand plants, picked up one last memento of green

cottonwood leaf, feeling that this shade of green had some kind of immortal power to save me and I didn't want to forget it. I proceeded up the bank through the undergrowth, there not really being a path there as I expected, and emerged out of the buckthorn amid its inedible black berries back onto the apron of the asphalt path, from thence to cross the playing field back to my car in the parking lot to deposit my debris of walking quill, jet drift-charcoal, flying carp, and emerald wedge of impossible Celtic magic fit for the sands of time.

Experience and enlightenment, what are they? Something happens when people throughout almost all of recorded human history, I mean all of known human history, no, prehistory is part of this span too; can one say "throughout all human history and prehistory too"? Well ever since we were humans people gathered into more or less circular spaces. Pre-human hominins (just learned that word on public TV) too certainly gathered around fire, and in shelters found or cobbled together, and hunched over long bones to smash them open and grow their brains with fistfuls of fortified lard. Would a group of Neanderthals sit in the shape of a triangle, or in a line all facing a cave wall, or along a river bank alternating with some facing the forest and some facing the water in a perfect 1-2-2-1 pattern, repeating along the bank? No, you always gather in more or less a circle so people can see each other. Therefore most primates I think have some idea of "the gathering space" and "outside the gathering space" which is kind of like a circle.

For whatever reason, a lot of cultures place a meaning on walking into a circle, experiencing something, then walking out. Generally the circle of the stone or mammoth-bone type, or at least often, can be aligned with the compass points. To do so is comforting to humans perhaps particularly because we crave novelty, our brains get all tied up in knots

without it, but one can only take so much of it. So you need a back to baseline, and noticing patterns is one way to do this. Every species also needs repetition, and back to baseline is of course what we mean by repetition not being always all new.

To me, in my own unvirtuosic practice, meditation has something to do with being comfortable in the present even though it isn't strictly novel, and by this comfort's transmutation into something pleasant noticing the always-brand-new in things like leaves and cups which are by all standards the opposite of new. A teacher of meditative drawing described this to me once as "the sight softens and begins to glow." I only know this to type it because I was riffling through a sketch book before going on my walk in which I wrote it down, and sketched a lot of circles with axes and braids and helixes throughout this past year trying to get a sense of what they meant to Leonardo, who also sketched them like crazy, and whether they are part of the *Mona Lisa*.

Meditation does soften the sight and make it glow (mistyped "flow" just there), by some operation. It is pupillary dilation? It's more important to experience it, as Gerard Groote said, than to explain it. He phrased it marvelously I think: "Does it profit you to be able to discourse at length on the Holy Trinity, but by your arrogance and vanity displease the Holy Trinity?" Groote did not suffer fools I warrant, and he basically wrote an instruction book on how to get your act together in the chaos of 12<sup>th</sup> century Holland or around there. Meditation can soften the sight and make it glow.

Early humans did not have any yoga classes that we know of, so their meditation might well have taken place during their daily activities of foraging, gathering, playing, fighting (only

when required), or what have you. Peter Sterling, who I've discussed elsewhere, calls this "small repetitive dopamine rewards" or something to that effect. Taking aesthetic pleasure of an acute potency from things like leaves and breezes. Such a design would surely make sense, right? We forget a lot of our own unavoidably natural nature sometimes.

Circles are less natural than waves perhaps, but two examples of circles spring to mind – berries and eyeballs. (My apologies for being very eccentric right now!) I could also have thought of the moon, which is full tonight I think, and the sun, which despite being circular doesn't really bear looking at much. Pumpkins are circular, but I dare say that early humans did not have pumpkins. Kind of what I'm wondering is whether circles are unusual but pleasing for the simple reason that they are often either other people, or animals we can communicate with, or good to eat.

Leonardo however studied circles and waves not like a cave-dweller in the strict sense, or rather a pre-human foraging hominin, but did so somewhat like we do now with drawings and symbols. He drew charts and graphs, the *Codex Leicester* being a great example and one which we should all read soon, preferably on paper, and then twitter about or send on paper postcards to the *Codex Leicester's* owner, one William Gates, with appropriately themed postcards like two I chose from yesterday to send in response to my friend's kind provision of a New York Islanders' ice sheet on postcard, i.e., the pendulum at the Pantheon in France, the dome of same, or something else hockey-related like the shoreline of Duluth on Lake Superior seen from high up. Yes, the *Codex Leicester* combines circles, vortices, geology, and cross-sections of things just plain miraculously really.



for me to remember that. Many of the curves and shapes in the *Mona Lisa* are the natural result of sections of circles and waves recombined in various ways. Not a single need in the world for any chiasmus, though I do believe that he built the picture to carry our viewing eye from the eyes of the sitter around the image somewhat clockwise (with a few whorls) and ending up back in our eye contact. Oh and there is a river on either side of the background, and pillar bases, which may be either 1-2-2-1 or just how reality often takes form, i.e. in halves of spheres as Leonardo wrote that the planet is. Chiasmus is not necessary in the *Mona Lisa*, but can be a complementary “adornment” or not there at all.

Graphic 2: 10/31/2020



Web log 3

## The Mindful Mona Lisa: a Five-Minute Meditation

By Max Herman  
Thursday, 05/28/2020



[This is the third of a series of blogs on "[The Mindful Mona Lisa.](#)" ]

THE key to understanding the Mona Lisa -- one of the most famous, mysterious, and important works in the history of art -- may well be the humble and unobtrusive stone arch bridge almost hidden in the background.

To understand why, try looking at the painting mindfully for five minutes.

Set a timer so that you are not distracted. Start with your eyes closed for a few breaths, just being aware of your breathing and finding a calm, relaxed

posture. Then open your eyes, and look at the painting. Notice everything you see, and all your sense perceptions in the present moment. If your mind goes off on a tangent, just note that, and gently return your attention to your breath and to what you are seeing in the painting. (A link to the painting is [here](#).)

When you are done, write down anything that particularly interested you. What was the experience like? Was there anything about it you didn't expect?

It was while doing exactly what you just did, a five-minute mindful viewing of this five centuries old portrait from Italy, that I got an idea about the bridge.

What I noticed first of course was the eye contact and facial expression, which captured my attention without communicating any particular message. After looking to the background for clues I noticed the bridge. It was the only sign of human life in the entire landscape.

I had been reading one of Leonardo's notebooks called the Codex Leicester, which has many drawings of flowing water in it. I noticed the river on the left (a shallow, wide one like in Leonardo's map of Imola) and the river on the right; were they related? While looking at the bridge, I noticed that it seemed to flow in a smooth line connected to the sitter's shawl, that also flowed like a spiral of water from the Codex. Then I thought: "Isn't a bridge like a river too? Things and people flow across it."

What might it mean that the bridge carries the eye, flowing and transforming into a garment? Well, it pairs two things that are fabricated and made: one we travel over, the other we wear. Two types of technology, yet parallel somehow. Of course this was just a daydream, a free visual association while meditating, not founded in any scholarship.

Finally I noticed the person within the garment again – the eyes, face, heart, and hands, the human. I realized I was back to sitting there with her, back from the landscape, sharing eye contact and observation as if with a peer. Was this observing yet another process in time, a fourth river?

This felt approximate enough somehow so I wrote it down and it became a new hypothesis. :)

Till next time: "Leonardo lived by the Arno, I the Mississippi!"

Essay 3: 11/1/2020

“Italian music from 1500” – that might be something good for me to listen to while I write this essay. My ears ring from a blend of loud music and home repair machinery like saws and such, so often this requires background noise. Flowing water is perhaps the most effective and least obtrusive, at least of the choices available on my hand-held device. The “Ballo Detto ‘il Conte Orlando’” seems reasonable, very flowing and riverine actually, though much cleaner and more proper than any actual river.

A meditative viewing of the painting *Mona Lisa* is kind of the basic idea or building block of this book. This may not be a strictly scientific quantity, like helium atoms are, but it seems practical enough to have a kind of form to it sufficient to the purpose.

The music shifted to England, whose Renaissance period I quite like especially for the writings by Shakespeare, but it was about a hundred years after the Italian and the music isn't what I want right now so I switched it back to a selection called “Italy,” a vocal work with horns and harpsichord.

My expertise on Italian history, music, and poetry is probably average, certainly amateur, though over the last two years I have studied it more in my spare time. The same applies to my expertise on Leonardo, and on meditation. There's no great profit in belaboring this, but there is a tension between these essays not being scholarly works by an accomplished Ph.D. in the field but rather the musings of a generalist with ambitious intimations encouraged for better or for worse by Calvino's ministrations in *Six Memos* advising “inordinately utopian projects are to be avoided, except of course in literature where they are mandatory if literature

is to remain at all relevant.” This is a paraphrase, but I take it as a legitimate obligation to take such a recommendation as not just important but necessary. After all, where is the boundary of what we desperately need to understand, yet still do not? Obviously, outside the realm of our understanding.

In swarm theory, they have shown that in complex populations of say bacteria there are “lingerers” who avoid adapting when the majority does. These are a kind of safety net. Calvino may have had something like this in mind when he described Cavalcanti, Dante’s contemporary and emblem of Calvino’s image of the current millennium, needing to leap lightly over tombstones to escape a band of drunken young aristocrats. Not unlike young Daedalus seeking to elude his classmates who would relish opportunities to correct his heresy.

Perhaps Cavalcanti is seen by Calvino as the poet of flux, of movement, in contrast to the solidity of Dante. My sense is not in the slightest that Calvino wishes to damn Dante; rather, he wants us not to damn Cavalcanti either (Bartleby being, in my Calvino hypothesis, the image of Cavalcanti crucified, figuratively speaking, on a cross of iron). Calvino wanted to warn us, we American persons of art and letters, and set forth some practical activities for us.

I am not an expert on Calvino either, yet I make a rather presumptuous claim that his *Six Memos* is based very closely on (or inter-related to by quotation and metaphorical allusion) Hofstadter’s 1979 book *Gödel, Escher, Bach*. *Six Memos* is from 1985. I won’t belabor this for now but may return to it.

As a non-expert in meditation, how can I claim that it is relevant in any way to view the *Mona Lisa* for five minutes meditatively? Perhaps in some definitions of right and wrong I have

no claim whatsoever to assert this. By other definitions I do. I might wish to compel people to do this minor ritual, but such a wish derives from my own inclination to weakness and frustration and wishing to boss people around. No, compulsory meditation does not exist. This does however reserve us each the right to suggest or even recommend meditations which we feel or sense might be salubrious, which is to say, point at something with a quizzical look or even a simple “what’s that?” Even bees do it by God!

A few days ago, walking in a mid-October snowfall down by the Mississippi, not far at all from where I like to celebrate the solstice in summer, my companion and I saw a flock of robins from the path. They were just a few feet away in the cover, hopping about and pecking at the leaf cover under the snow. As lovers of wildlife, enjoying sighted creatures a bit like pets (or as Huck said, “pets enough if you wanted to keep ‘em”), it was a welcome surprise to see even one robin. Then we noticed three, then well a “whole bunch.” Walking into the forested area by the bank was quite lovely and peaceful, yet the robins were everywhere, a jocund, jovial bird I thought at the time, not as awkward and boisterous as blue jays but a little gregarious and physically galloping. They were all around, bathing and generally just having a rest stop presumably on the way south.

It occurred to me to think, why would they all fly together like this? When I see robins in the spring, such a joyful sight with their orange-red plumes, they are always solitary, professionally and respectably hunting for food in the burgeoning soil. These were a hundred or more all flocking for a long trip. There must be a reason, and their various calls – some caws, some warbling and flute-like or oboe-like – must of course be part of the reason. They help each other find their way, find food, and avoid lions and tigers or whatever eats them.

There is an urge to communicate, and to receive communication, which is not all bad. Pascal wrote that all human misery is caused by our incapacity to sit quietly alone and meditate. There is some truth to this, but toothaches are miserable regardless one could argue. Yet the misery Pascal notes is not toothache misery. I also carry a high regard for Pascal because he liked math as well as writing, and for a more selfish reason. I once coined a phrase about “the ineffable union” of people and history, a surely very flawed phrase but still one that a mother could love. Most people I knew, even my closest friends and family, hated the phrase, though strangers sometimes liked it if presented in an entertainment setting and not belabored. Actually some friends and family liked it if I didn’t go on and on about it, and let them talk, and didn’t make an imposition but rather included it as part of an already decent conversation. My hybris-detector was confused of course, the internal one, so I felt “helped” by Pascal when I found in a random book by him that I bought the phrase “ineffable union.” To me it’s a decent phrase, something to do with “temporary association in passing with non-trivial significance indefinable outside the time span of its occurrence.” Just a simple idea about appreciating the present, really.

The robins have to communicate with each other, and like all organisms we humans learn from and adapt to those we encounter. Which will eat us, teach us, entertain us, or be eaten by us? Only an enjoyment of the learning process could ever make lasting sense of all these transient realities.

In 2018, with Calvino’s *Six Memos* daily in my thoughts and note-taking, I attended a conference about meditation. The great meditation expert and neurologist James Austin was there, whose 1998 Neuroscience Book of the Year *Zen and the Brain* was a decisive influence on

my thinking, or at least my opinionating, and I bought a copy of his new book *Living Zen Remindfully*. He graciously signed it and I asked him something about art or poetry relating to Zen, and he replied that he loved haiku and wrote a lot of it. Also he mentioned that Zen monks used to consider birds and birdsong to be “reminders” to return to the present moment, what we call “mindfulness” being in the early tradition defined more as “remindfulness.” So birds are not purely a digression.

My expertise such as it is thus will depend to some extent on a bibliography, with apologies for my presumptuous Icarian flights which nonetheless may have some value at least to myself, at least to set forth in these pages which may someday become a book but will certainly and indeed already have become a notebook. Pascal provides an account of the merit of meditation, as does Austin. I don't suppose I need to do all that much more, and verily even the gracious reader's place of employment will give you a discount on your health insurance, if you are so fortunate to have health insurance and employment, if you do a bit of meditation (a huge tent) now and then. You most definitively do not have to be an expert to get the discount.

Is a “meditative viewing” of the *Mona Lisa* at all worthwhile? To me it definitely was, and several of the people who I've asked politely if they would do me a favor for my book or blog and try it have responded that it wasn't revolting to do so even if my requesting it was a bit off-putting, and in the case of the co-leader of my unfunded research group on the interconnections among literature, art, neuroscience, meditation, and networks, infuriatingly off-topic.

Sometimes non-predetermined activities have a special value – not always, but sometimes. The occasion or justification could be as simple as Leonardo’s 500<sup>th</sup> anniversary, a compact bow of regard to the attempter, one could postulate, of imagining a better world. The confinements of Covid-19 might be another minor justification. Still, I appreciate and respect 100% or almost one hundred percent the right of people not to look at the *Mona Lisa*, not to look at it for five minutes, and not to look at it with an attitude of mindfulness meditation.

If one does have an interest to attempt such an activity, all I can suggest by way of further infrastructure is to mention your experience to someone. What and how you mention must perforce be up to you, and although I would like to prescribe every vowel and consonant of your conversation I also intuit from time to time that is an ill-behaved proclivity, like hacking at your on-ice companions in hockey. Why even play if everyone is tripping, slashing, and hooking each other up and down the ice. There are far better games out there if you look.

The observations that appeared to me in August last year have been already over-described I’m sure. They are however the origin of this book so I wanted to be honest and mention them. After later research, many of the observations that struck me, almost just handed to me the way they give you peanuts and tomato juice on the airplane, align with the scholarly expertise of today (see bibliography). Other aspects do not, but might they perhaps align with the reality of the painting and Leonardo’s messages? As fiction they do perfectly, so the skeptics among us may feel free to read about the bridge simply as a fugue or pretend menuetto as fabulous as the Billy Goat Gruff. Maybe this is part of the experimental method, the core of science, to distance the interfered-with phenomena by way of a control group. This might take the form of imagining a person who felt certain odd things about the bridge in the

*Mona Lisa* and made up elaborate stories about it which could not be proven either true or false. This is not far from factual.

It is however virtually universally accepted that the *Mona Lisa*'s spiral shawl is a symbolic expression of Leonardo's ideas about water flow, and the city of Florence, Italy did award him the noble title of "Master of Water" – he was something like the general of what today we would call the Army Corps of Engineers. This is just to say that not every single element of the tomato juice I think I may have received is antithetical to the accepted explanations. And if one bit of a pattern fits, like a point on a fingerprint, might not others?

Black swans are an image used to describe unusual and unexpected, i.e. highly improbable, events that make a disproportionate impact. Maybe viruses and DNA mutations are a bit like this. They ought not be totally disregarded. Arguably many organisms take the trouble to look out for these, and detect them when they occur. "That's odd! It doesn't match. I shall check it out, but perhaps cautiously at first," sayeth the robin. And of course, not all day every day, though as Peter Sterling writes of the vast diversity of "intellectual gifts and inclinations" of human individuals it may be precisely our extreme diversity of types of intelligence that turn our "intense individuality and obligatory sociality" into a robust network of perception, processing, cognition, and behavior. So there may be advantages to people who are a little out there, in addition to the well-known disadvantages.

The amateur eye might also have something to offer because of its potential resemblance to what has been described as "beginner's mind." The expert mind is specialized and trained to notice and evaluate certain often very difficult and complex characteristics of

reality. One disadvantage is its inability to see or perceive otherwise than how it was trained. There's a trade-off. Has all of our training, even about Leonardo, proven effective? The Freudian interpretation is still surprisingly dominant in the realm of understanding Leonardo. To me this does a disservice to Leonardo as well as to psychiatry and the study of literature. The medical field having largely discredited Freud's most daring claims, and certainly those most unique to him, his followers and descendants have populated the humanities as a refuge. Is this simply fantastic and great, all the time, never to be calumniated by aspersions of error? Maybe for some people in some places around society today. The head of the speaker must be severed from his or her body if Freud is not praised. From what I can gather, this is not universally the case, but if Freud, Marx, and Nietzsche were to be triumvirately revalued there would be some reverberation in the academic world, maybe. Or maybe not. I failed as an academic pretty much from day one.

If the *Mona Lisa* is drastically misunderstood though, this might be a case of incorrect valuation of a primary planetary asset of the informational sort. In economics, misvaluation is a loss of value. It is inefficient; it is waste – wasted resources, wasted time, wasted opportunity, and sometimes even the unnecessary loss of human life. I'm not qualified to judge every case of this wastage, which has been commented on often before, but it is an acknowledged economic reality. Might a more proper valuation of the *Mona Lisa's* information increase its utility and thus the resilience of any given economic system or sub-system influenced thereby? To me, the painting has more value now. Leave the rest to history I suppose, but with every breath each of us creates a little quantum of history all our own.

Traditions do change and evolve. What we now call “the fundamental tradition of our civilization” in many cases is not even a hundred years old. However I do concede: I have no proof that mindfully viewing the *Mona Lisa* for five minutes will do anybody any good; it may even do harm but I struggle to see the likelihood of that especially since lots of people look at the *Mona Lisa* more or less mindfully already every day. Perhaps all I am saying is that if you the reader were to view the painting mindfully for five minutes and wish to articulate anything about what it was like I’d be interested to hear about it, time permitting of course, and within the normal bounds of decency and what we call “community standards.” Really I’m just voicing a speculation that I might be interested, with a probability I currently place at a good orbicular percentage of eighty.

Note to self, I should mention in a preface or introduction or epigraph to the reader that this book is based on the rather simple starting point of my own personal five-minute meditative viewing of the *Mona Lisa*, in reproduction, in August of 2019, and that in something like a “spoiler alert” the reader may wish to do this before reading any further. That seems very proper and even necessary I would say, so I wanted to write it down.

In my own meditation, which I’m not succeeding too well at describing, I did happen to make the decision so to speak, for the time being, that the S-shape on the left side of the landscape is a shallow or dry riverbed and not a path or road as sometimes is said. The image of the *Map of Imola* by Leonardo, as well as dozens of river drawings in his notebooks, is enough confirmation of this. Also the “path” would have to be at least a hundred yards wide which makes no sense.

As to details, a high-resolution image which can be enlarged is kind of necessary to understand certain details like embroidery and the like. I'm not much influenced by or interested in hidden details that cannot be detected without an x-ray or other technology beyond what the viewer can see in basically five minutes. The technical science is of course valid for many purposes however, and I would even recommend viewing a "digitally restored" image as well as the various stages of composition. These are interesting for many reasons, Martin Kemp's 2017 book *Mona Lisa: the People and the Painting* being the one I refer to most often, not least for the evidence suggesting the bridge may have been added last.

A lot of good art and science is being done these days, it seems, about the meaning of meditation as an element of brain function. For this to make a lot of sense in terms of evolutionary biology there would have to be aspects of meditative states in normal hominin activity, which would beg the question whether the robin has buddha nature and would answer, to my way of thinking, in the affirmative. Perhaps one might say that the robin having buddha nature is buddha nature.

One meditation method I have found useful and relevant is what they call "the buddha smile," as one can see in Buddhist statues and even perhaps in archaic Greek sculpture. For me the "slight smile" helps counteract frowning and worry during meditation in a kind of proprioceptive or possibly interoceptive feedback loop. At the time of its composition the idea of the subject of a portrait smiling was not too typical from what I can gather. Is the Mona Lisa meditating? What is an image of meditation, and does it have "buddha nature"?

Put another way, do we learn to meditate instinctively by seeing others do so? If that is true then the decline of meditation and its replacement by superficial substitutes is indeed a loss having economic and even potentially national or global security implications.

The question of Eurocentrism or cultural chauvinism is also germane. The *Mona Lisa* is much less Eurocentric for me personally, in terms of its aesthetic and intellectual function in my daily life, than it was before I looked at it for five minutes on the airplane last year. The relationship between the individual and nature, in a fabric of art and technology, is not to me a European domain of exclusive proprietorship. The opposite is actually more true, and to deny this is in my opinion to overlook the value and benefit of the painting. Of course anyone can disagree me with me and I respect that.

There are a number of events from my personal past which are not flattering in terms of my overall decency as a human being, indeed, as I sometimes like to say (only to myself because I don't know anyone that would likely think this funny) "I've done things that would make a billy goat puke." Some of these essays may need to include an accounting of those bad acts just to avoid making a giant mess of things. I've broken the law more than once; I've said things to people in person or by phone or letter that cannot be justified and are in fact disqualifying. I've done things that are disqualifying, and have, to say the least, a very rotten side to me. Perhaps this should be removed later during the editing process, such as it is, but maybe leaving it in is OK too.

One method of learning to meditate in certain Tibetan schools is to meditate all night in a cemetery, where bones and corpses are often pushed to the surface (perhaps due to the soil

freezing and thawing). Sometimes meditation brings the very worst into our awareness and causes us to just want to hibernate. I've done this so often, even already today, that I have no right to judge anyone. Perhaps the clemency I want to request from the reader is something to do with this, which is both a way of remembering that I am accountable and confessing that there are some debts I will never be able to clear.

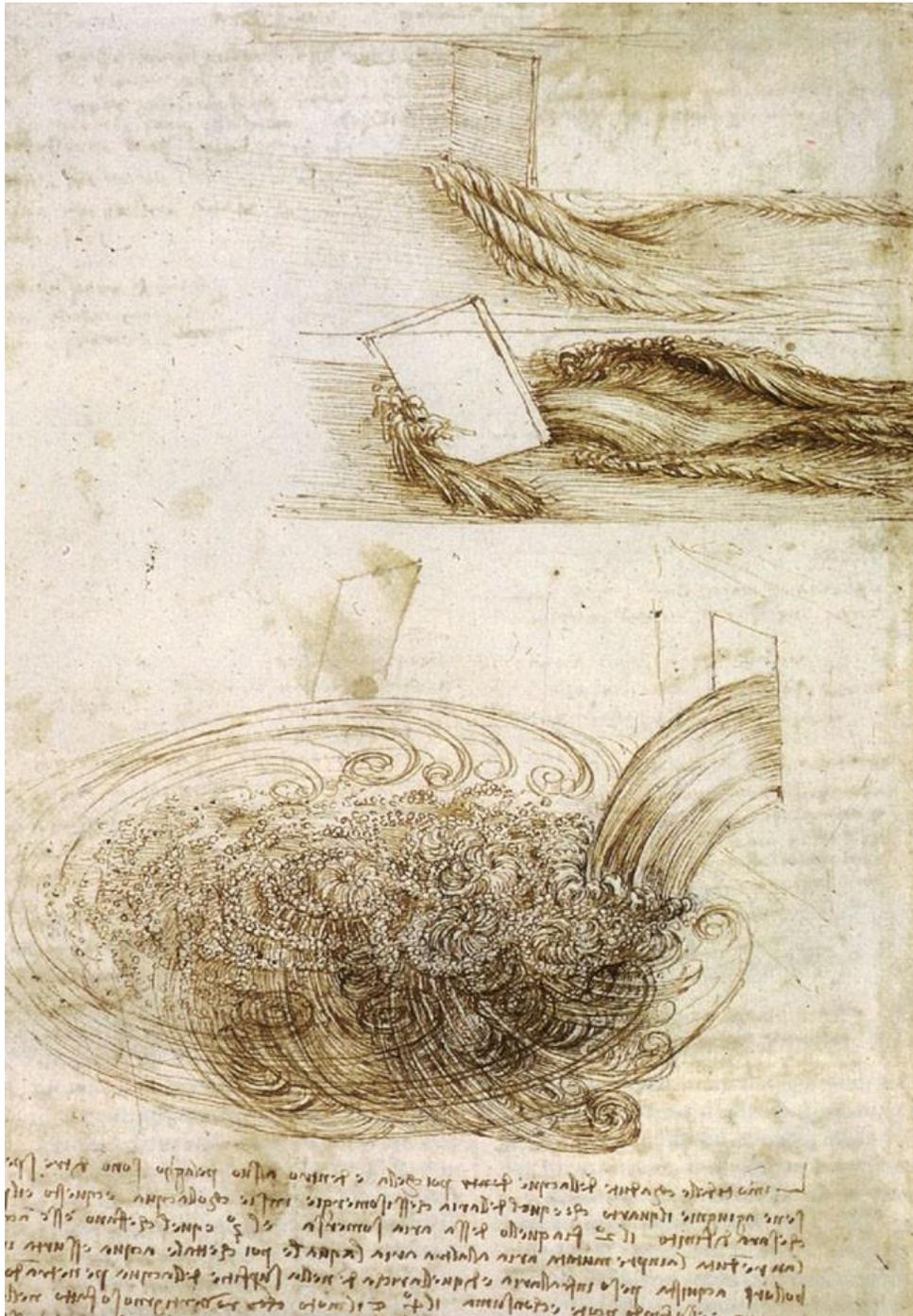
Graphic 3: 11/1/2020



Web log 4

## The Mindful Mona Lisa: Cycles of Change and Healing

By Max Herman  
Friday, 06/05/2020



[This is the fourth in a series of blogs about "[the Mindful Mona Lisa](#)."] ]

As a white middle-class American male, I have been struggling to figure out how a blog about the Mona Lisa can possibly address the horrific killing of George Floyd, and the justifiable rage and protest which has ensued, much less the centuries of oppression which people of European descent have inflicted on non-Europeans.

I have no degree in art history, just two in English, and am not nearly qualified as an “expert” on Leonardo. Yet I appreciate that he wrote the following (an alternate version of the similar text I quoted in my first blog of this series): “Though I may not, like them, be able to quote other authors, I shall rely on that which is much greater and more worthy: on experience, the mistress of their Masters. Why go about puffed up and pompous, dressed decorated with [the fruits], not of their labors, but of those of others. And they will not allow me my own.”

It’s not my place to judge whether Leonardo can be a force for justice in our day and amidst our many converging crises, but I do think it is possible.

The evidence, in my view, supports the interpretation of the Mona Lisa as a portrait of change in both the natural and human worlds and how we can most humanly and humanely navigate that change. It seeks to blend together the scale of geologic time and the immediacy of present-moment human experience in the context of what we build, create, and choose. It asks us to examine our own consciences regarding how we live in the world, how we respect nature and other people, and what we value -- objects or people, the material or the human. It urges us to communicate as equal peers.

Leonardo was suppressed in his day to a great extent, with many of his ideas being banned from public expression, and as a child born out of wedlock he had to contend with discrimination. He probably had some understanding of injustice, perhaps additionally so if his sexuality was also criminalized. Is reference to his achievements as somehow justifying oppressive systems he did not himself endorse at all logical? His spirit may indeed be crying out for change if only we can learn to listen. If the Mona Lisa ceases to be a living work of art and is reduced to a meme or a logo for trinkets that spirit could well be lost.

Leonardo condemned “Men who desire nothing but material riches and are absolutely devoid of that wisdom which is the food and the only true riches of the mind.” He also said that “No man has a capacity for virtue who sacrifices

honor for gain.” How well those who claim Leonardo as a great genius of their culture live up to these strictures is direct proof of the hypocrisy or integrity of that claim.

As Leonardo also wrote: “One’s thoughts turn toward Hope.”

## Essay 4: 11/2/2020

Yesterday was another relatively mild day, well chilly actually but not frigid though the wind was a factor, with bright sunshine so walking by the Mississippi was again quite pleasant. The time changed so it was different for light and warmth in that respect. Basically just another nice walk, no great details to bore the reader with or significant events. I did see the robins again somewhat, gathering in admittedly lesser numbers by the edge of the river and somewhat interacting with a flock of twenty or so mallards. They tend to move on when approached so I saw the groups from a distance of about thirty yards, at the edge so to speak of a wide expanse of river with a high bridge near the horizon of the forested banks.

Murder is a legal term in some contexts, in addition to being a moral one, and I cannot say for certain if the death of George Floyd this past Memorial Day was a case of murder. It looked like murder on the video so in that sense perhaps it was. The trauma from all this is still very present and if I think about it how could it be otherwise? I feel particularly incapable of writing about it today. I grew up and attended the public schools in the Third Precinct of Minneapolis, and live in it today. I think it best to perhaps leave it at that, but once mentioned maybe that is not acceptable.

Tomorrow is the day of, figuratively speaking since the pandemic has changed how we vote somewhat, the US election here. It's always a time of tension and suspense. I've done what I can to help those candidates I prefer and have little left to do other than wait. Elections can be traumatic, and trauma can call forth past trauma in a manner resembling a storm or earthquake or possibly echoes. They say trauma never really leaves the body and is always

there below the surface; yet some say that healing can occur. Perhaps the obligation is to do what is necessary to heal as best as one can conceive, resist the urge to add more trauma, and try to help as much as possible. This is basically the passive or observation-based philosophy of Hippocratic medicine. To be sure it has a cautious angle of predilection and this is not to be automatically praised much less imposed as orthodoxy. It does have some merits though I think. Perhaps its very neutrality makes it a potential locus of reconciliation? Truth and reconciliation has been suggested as a path forward in some instances and may be seen as something feasible. Perhaps societies try what they are capable of trying and get the results that circumstance and intention end up with.

Gridlock is one of the most difficult aspects of trauma to overcome. I have only an amateur student of literature's degree of expertise about trauma. One side project I have been working on over the past two years is a loosely affiliated "research group" as mentioned previously. It is comprised mainly of participants from the 2018 conference on mindfulness I attended, with some other artists and writers added who have some interest in meditation. Meditation has always been considered a form of health preservation, or as the well-known mindfulness expert Jon Kabat-Zinn stated in his keynote address to the 2018 conference two Novembers ago "Buddhism is a form of medical theory." (This is a recollection from memory only and may be something of a paraphrase.) The co-leader of the research group is a physician, and the emphasis has always been on health albeit from an optimization perspective at first by way of chronic stress reduction, and the medical dimension of the group has of course increased in proportion to the pandemic. Perhaps trauma can be thought of as having a

lot of forms and degrees, and in this sense I do believe that meditation and therefore, in the hypothesis being proposed here, art are in some sense medical practices.

Meditation takes many forms, but one of the earliest and certainly an interesting form is that of ancient Greek tragedy and its prehistoric predecessors. Tragedy was at its classical apex during the same “golden age” of Greece that produced Hippocratic medicine. I wrote a crude undergraduate paper in December of 1990 about this called “Learning to Accept Mistakes: Medical Theory, Political Trouble, and the Tragic View in Oedipus Rex.” This was nothing particularly momentous, this paper, but I did have an inkling of why I liked literature in that it was satisfying somehow to notice all the talk of plague and expiation and understand thereby something of the author, Sophocles’, potential intent. It’s one of those cases as a young person where you say “is what just happened something, or nothing at all? I care about it and it matters to me. Perhaps that alone makes it something. I don’t have much else to go by, so I’m going to care about this.” My professor liked the paper well enough and I kept a copy for all these long years, referring to bits of it occasionally in graduate school, and eventually I searched the internet for like ideas and found some by Jacques Jouanna. This is not proof of my speculations of course, I mean, of their accuracy or importance, just a noting of something similar out there in the ether.

Veterans’ use of meditation has shown benefits and my understanding as an interested student of the research is that the healing of trauma of the cognitive type (and perhaps the physical type by stress reduction and mind-body healing modes) does include varieties of meditative therapy. One can see in the case of the goat-song, or “*tragos-ode*,” that the pre-ancient precursors of the Greeks would sacrifice, and sing, and dance in concert together in the

presence of plague. Simply noticing and grieving aloud in concert was part of the survival mechanism. I simply cannot vow my allegiance to those who would persecute such grief and label it with trivial superficial condemnations like Communism or Atheism. My hope is not to be tendentious and worry the wounds that threaten loss of a limb, the limbs perhaps that allow liberal democracy to continue to walk the path of living up to its potential, but there is a difference between silence and forgiveness. What is more important is that I am far more a perpetrator than a victim and cannot extricate myself by any dexterous or clever means from the greater context. My role is not really up to me beyond a limited repertoire of inflections.

Still, one's thoughts may turn toward Hope. Do not meditation and art, including its literary forms, aspire to this hope and even base their entire value proposition on it if you really look at the basics? The contemplative aspect of aesthetic experience may need to be viewed a bit more widely than we are accustomed to in order to put this context into an understandable frame but I do believe that art evolved as a human capacity in large part to provide a surplus of optimism beyond what the "raw facts" could make certain. This is just smart survival, and perhaps just because it doesn't always work is not sufficient cause to claim that it never does and never can.

We all do what we are going to do, and this is as it should be. Liberal democracy has been under siege of late and the siege may last beyond tomorrow. It may be a siege that goes on far into the present century and beyond, with the barest of survival of the dimmest flicker of hope beneath catastrophes that some have called unprecedented in scope that the "Anthropocene" age, the age of consequences for human action, has already begun to bring. Perhaps liberal democracy has always been under siege even from the time before humans

existed. Perhaps every behavior of every biological life form is always under siege from every direction on the spectrum including the random hazards of simple time passing.

One idea I've seen more frequently lately is that the Great Depression of the 1930's was caused in part by faulty understanding of stimulus spending. It could be that politics and human nature were not so much to blame as just economic technique. Much has been said about history "having to happen a certain way because of ABC" but this inevitability factor may be overestimated. The twentieth century might have looked a lot different, and therefore today too, if people had just known a bit more about what to do during recessions.

In that sense, how humanity approaches justice and healing could depend a lot upon how imaginative we can be. Calvino referred to this of course in *Six Memos* as needing to look at things "reflected" so to speak, in the metaphor of the mirrored shield of Perseus, so that one doesn't become trapped in gridlock by looking at the terrifying power of politics too directly. (For Calvino, I am guessing that his dilemma was created in part by his hope for Communism fading in the forties and fifties; looking at Capitalism and Communism and seeing horrors in each, what can you do?)

I've gone now way beyond any kind of area I can write helpfully about. The point was just to mention that meditation can help with trauma, some research shows. If meditation can help with art and vice versa, then maybe art has a role in history's overcoming of its traumas and if you will curses. Aeschylus wrote about how the endless cycle of revenge-killings can go on and on forever in a pointless ouroboros of a loop (Agamemnon killing his daughter, her mother Clytemnestra killing Agamemnon, their son Orestes killing his mother Clytemnestra,

and so on and so on) and that the gods at some point get tired of the cycle and tell us to cut it out.

More to the point for this book is to ask if the *Mona Lisa* is a painting meant to teach us how to meditate, and do art and science the “right” way, and stay humble, stay in the present, be human to ourselves and each other, and in this way stay healthy as best we can and make progress for ourselves and the world, for nature and for art and science too. I believe that it is, albeit with a different vocabulary being used by Leonardo than what we use today. Different isn’t always bad, or all bad.

The *Mona Lisa* may be actually a place so to speak where Eurocentrism can start to get over itself a little and just be better, evolve toward both its own ideals and to better interaction and coexistence with others. This is not guaranteed of course, but it seems to me that the *Mona Lisa* is drastically misunderstood precisely by the Eurocentric prejudices by which it is interpreted. The painting itself is, I would argue, anti-Eurocentric. For example, it attempts to express a unified, dynamic interconnection among nature, humanity, art, and science that is actually quite progressive and “in balance” so to speak. By art and science Leonardo also meant engineering, the sum total being something like what we now call “technology,” and the painting is all about what is the better and the worse way to look at technology. The relationship between humans and technology is a complex and challenging one and the more imaginative we can be the better we can stay resilient and preserve our own humanity.

Talk of contemplation, survival, and annihilation always seem to drift into theological spaces and those spaces are not always conducive to conversation. This in itself is a kind of

gridlock, and it can have bad consequences. Will people grip our opinions with a death-grip or learn to see better, hear better, and communicate better? It doesn't have to be written in stone that improvement is impossible. In fact one can argue that we are potentially on the cusp of an era of enormous improvement, transformative even, if we can avert certain disasters which of course are also possible. Much will come down to how we go about our lives; technology alone can't fix it. We do need to exercise some caution but we don't need to be paranoid. Safety is important but so is manageable risk. Is it so bad for the different religions and creeds to attempt conversation? It doesn't even need to make them weaker to converse. Does a conversation between people make them worse people? Certainly not always. Manners are important, in this as in many things, and manners are sometimes compared to dancing.

In some areas of science today there are attempts to understand the scientific basis of meditation, especially its neuroscience. This is sometimes called a "meeting" of eastern and western, the contemplative traditions of Asia and the scientific traditions of Europe. This is a simplification of course but it needn't be demonized. It is a good idea for science to engage with contemplation (including art), and it is good for different areas of the world, especially those now experiencing a state of great-power tension, to interact somewhat. Why throw in the towel without even trying to achieve peace? It might not always work, or work as rapidly as we would like, but cultural exchange between the adversarial groups on the march today could be very helpful in avoiding another WWII.

The diversity of contemplative practices beyond just the East Asian Buddhist and Zen traditions is also being more richly appreciated so that a truly diverse fabric of complexity is

finding a place in the discussions. It is being appreciated scientifically that no culture has a monopoly on contemplation, any more than a monopoly on art or conversation. This is another way of saying, also, that no person or group of people have a monopoly on imagination or intelligence. This selecting and excluding is a bad habit not just in today's world but in the messages sent to us from the ages far past. We all do it but perhaps taking a pause and a step back is in order. What do we have to lose from a little reflection?

I know it's a stretch to see the *Mona Lisa* as a parable about how technology and its products are like clothing, which can help us as humans but shouldn't be in charge. No one really thinks of the idea of clothing to describe the role of technology in our lives and how we should balance it with the other human values we cherish. But that is pretty much what it is. At least it seems that way to me sometimes.

(This article is interesting. I love Quanta magazine these days!

<https://www.quantamagazine.org/brain-cell-dna-refolds-itself-to-aid-memory-recall-20201102/>)

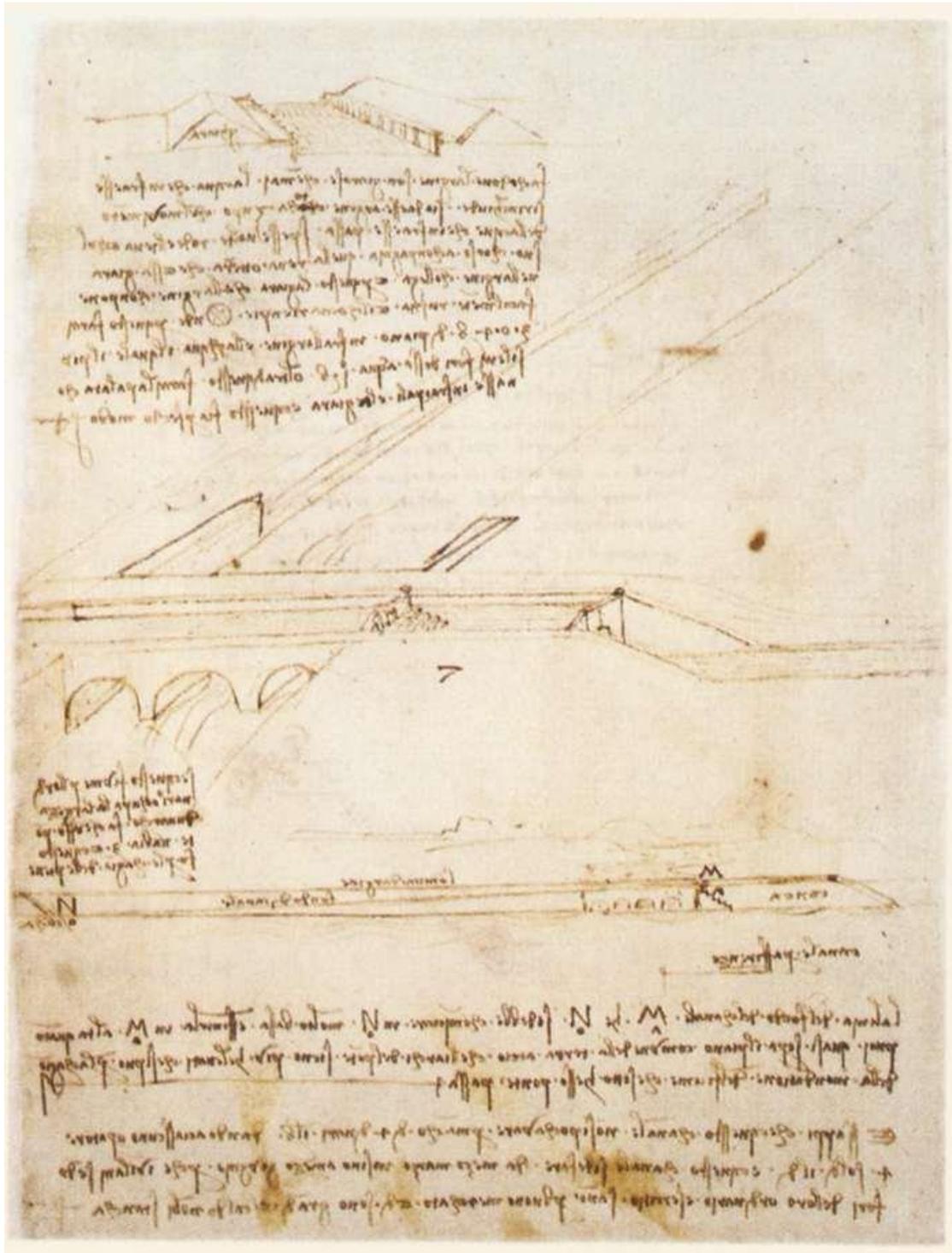
Graphic 4: 11/2/2020



Web log 5

# The Mindful Mona Lisa: Canal Bridges and Cochlear Forms

By Max Herman  
Thursday, 06/11/2020



[This is the fifth in a series of blogs about "[The Mindful Mona Lisa](#)."]

Reading Leonardo's notebooks this past week I found a very interesting drawing of a canal-bridge, a design like an aqueduct built to carry boats not just water over a bridge. It was part of Leonardo's work on a massive engineering project assigned to him by the Medici rulers of Florence to divert the course of the Arno river to connect directly to the sea, bypassing the rival city of Pisa.

Carlo Starnazzi describes this as a "grandiose plan to realize...at the confluence of the Main Channel into the Arno and at a very short distance from the Bridge of Buriano, subsequently consecrated for its symbolic valence in the background of the Mona Lisa and of the Virgin with the Yarn Winder, a work of high engineering: a bridge-channel, that might ... put in communication the two water courses...." [Carlo Starnazzi, *Leonardo from Tuscany to the Loire*, p. 24, 2008.]

If the bridge in the Mona Lisa is a reference to the bridge-channel drawings from the notebooks it would support the idea that it is meant to "flow" into the water-vortex shape of the sitter's shawl, substantiating a key element of the [bridge-garment-experience](#) hypothesis. The Mona Lisa's right hand and left sleeve also echo this kind of blending of like spiral forms, with the curve of the fingers leading into the curves of the fabric like a graft or braid.

Starnazzi interprets the sketch of a series of inverted arches in Leonardo's drawing "[Schematic of the City of Florence](#)," Windsor, RL 12681, as a reference to the bridge at Buriano (ibid, p. 69). Yet something else intrigued me as much the question of whether Leonardo intended to depict any specific bridge: why does the RL 12681 detail have so many more arches than the bridge in the Mona Lisa?

Visually the RL 12681 detail called to mind a linear half cross section of a spiral tube or cochlear form. Starnazzi mentions other examples of cochlear motion and forms including "[Archimedes' Screws](#)" from the Codex Atlanticus f. 26, "Examples of Cochlear Motion" from Ms E, f. 42 (ibid., p. 27), and drawings of the trajectory of wind from Ms. E f. 40 (ibid pp. 199-200). Each of these forms somewhat resembles the RL 12681. Of course this similarity is speculative, as well as geometrically inexact, and must be considered a

guess at best if not a red herring. Perhaps the RL 12681 detail is just a typical many-arched aqueduct form, or something else entirely.

In any case, if the bridge in the Mona Lisa is meant to evoke the design of a canal-bridge, aqueduct, or cross-section of a cochlear form it would offer plausible context for Leonardo to have intended a compositional and thematic purpose for the bridge, as a visual element of the painting's structure and a reference to ideas from the notebooks, beyond being just a picturesque landscape detail.

Next week: category theory, analogy, and the nature of consciousness

Essay 5: 11/3/2020

“A Musical Offering” by J.S. Bach has an interesting story behind it. Douglas Hofstadter describes it well in his book *GEB*, chapter I forget which, let me check – it’s in the Introduction. Bach was summoned to visit the King of Prussia, a haughty man, who insulted Bach a little and challenged him to perform an “impossible” six-part musical improvisation on the spot. Bach was able to do a three-part improvisation and said he would have to get back to the king on the six-part. Bach sent the composition later to the King and it had a lot of odd puns, ideas, and structures in it.

I only read Hofstadter, and just this spring I think, because when studying Calvino’s *Six Memos* I became intrigued by what the unwritten sixth memo might have been about. Calvino left a manuscript with six chapter names but only five chapters were written. The last was blank, and remained so at the time of Calvino’s death shortly thereafter. The problem is, the book is full of examples of unfinished books and music! How can it be possible to write a book about books with unfinished last chapters, then die before writing the last chapter? Either way it’s an oddity. This prompted me to wonder what the last chapter “Consistency” might have been about, and secondarily, whether it was intentionally left blank so that we (later humans? Americans?) could fill in the blank.

As an artist or poet one doesn’t have to prove that one’s idea for a poem or picture is valid. Of course there are settings where such proof is mandatory, even by penalty of death, but in the great scheme of things a poem is still a poem even if you can’t prove it’s a good or correct one. I can write a poem about miraculous days when the world sheds its prejudices like

scales from an eagle's eyes, burned off by flying straight toward the sun, even if such a day is impossible. The poem is still a poem, and this is what we call "poetic license" or in a sense, the freedom of speech. There's a value to this freedom even if society has to or chooses to curtail it from time to time.

This is just to say why I decided to make a stone circle or something like it for the solstice, and consider it to be an act of consistency which is to say a draft translation of what hypothetically could have been in an essay about consistency that was never written, or at least similar to what could have been. It's actually, this poetic type of image, very close to what algebra is. It's a statement of "let A hypothetically equal B." We don't know for sure that A is equal to B. It's a form of supposition or speculation about the future or the unknown. "Let a stone circle on the solstice be equal to consistency." Then you go on from there, finding other equations or ideas – deriving them I suppose – from the base supposition.

This is of course a valid form of probability analysis, and thus of what Peter Sterling calls "predictive regulation" or "allostasis" which is at the core of every biological function he argues, in his 2020 book *What is Health? Allostasis and the Evolution of Human Design*. The imagination exists so that we may imagine "what dreams may come" and then inform our actions under the duress of the unknown. Or as Frost put it, "Design, design – do I use the word aright?"

Of course there is no plan set forth in any high school textbook that I know of which can tell you how to figure out what would have been in a chapter which has a title but was never written. Perhaps this is as it should be. Why bother to try? I don't know, but that's what I did.

Think of it as a game of poetic algebra I played with a friend that I never met, on reading what I thought was a postcard saying “let’s play some poetry-algebra, thou person of the future!”

Calvino experts around the globe may wish to draw and quarter me for such a presumption and I can hardly blame them. But choose it I did.

One simple search pattern is just to look for recurrences of a word, in this case “consistency” or better yet “Consistency.” The former appears a few times in the first five memos – a clue so easy even a childish American Prussia-King can understand it. In fact on finding such a clue one is a bit abashed – what am I, lazy and inarticulate? Unable to use my words freely and with a bit of style? These elements might be called “barbs” or “burrs under the saddle” or “gadfly stings.”

So we look for appearances of the word. We look up the etymology, which is from the Latin *sistere*, to place or stand, the root also of exist, persist, subsistence, resistance, and many other sist- words and their grammatical variations such as solstice, sun-stand or sun-place, which is in Italian “*solstizio*.” My thoughts sometime would wander around for other times that I heard the word consistency – in my high school sport of tennis it is an important word, and one in which I possessed a foul deficiency. Be that as it may, it’s not a very common word certainly in poetry anyway. It connotes cooking and blending of sauces, being right and wrong, judgments about human deception and reliability perhaps as in “inconsistent with [insert some mandatory guideline here].” In fact it isn’t the most evocative or poetic word at all, what they call “overly Latinate” language with too many “ists” and “istifications” and “istimatories” for good quality language to settle for. Words like “porridge” and “begone” have an edge in some circles.

Memory fails me about the first things of interest I found beyond the Latin origin and its relation to solstice. There must have been some – oh, “stand with” was one. I had that idea in 2018 before the first solstizio, with very little more than pictures from the local Hennepin County Library Special Collection as images to ballast the term. The image categories I chose were maps, architecture, astronomy, anatomy, literary images cited in *Six Memos* (like *Don Quixote*, Shakespeare, and “Bartleby the Scrivener”), with brain scan images from the co-leader of my research group so as to bring in meditation. These parts were all just assembled in a rather messy assemblage and called an art project. “Such as it was, such as it would become.”

Beyond those two, the “stand, place” bit and the “stand with” bit, I never found much about the plain word “consistency.” Being a somewhat lazy reader, with many books unread on the typical library’s shelves, I started buying used copies of the books in the first five memos: *Perec’s Life*, *a User’s Manual*, *Nabokov’s Pale Fire*, other Calvino books, a Musil book, and some others. I re-read *Bartleby*, since Calvino’s wife wrote that he told her “Consistency” was to have included a discussion of Melville’s story in addition to have been written while in Cambridge at Harvard to deliver the honorary Charles Eliot Norton Poetry Lectures, something Calvino never lived to do. However, we did receive the (almost) six-part lecture series in the mail, those of us living over here in the neighborhood of Harvard and its environs.

I also bought Hofstadter’s *Godel, Escher, Bach: an Eternal Golden Braid*, which Calvino mentioned prominently. It’s kind of a math book with examples from art and music added in. In my younger days I was gifted in math but lacked something, call it mathemacality, and never went past calculus. This meant that the heavy math stuff in *GEB* (and the computer stuff, because I have no concept of what a computer is really) was less realistic for me than the art

and music portions. Knowing this I read the table of contents first, to look for let's say Calvinoesque words or phrases to guide my perusals and lo and behold as bright as a standing sun there was the proud and mighty words "Consistency, Completeness, and Geometry," the title of Chapter IV.

I won't go into the whole connection and web thereof here, now. Suffice it to say that the correlation is extremely obvious and questioning after some explanation is kind of stubborn. Yes various people will do it, I know, I know. In this case I may need to quote Marius to the patricians like Leonardo did. The *GEB* is from 1979, and *Six Memos* is from 1985. It would be a logical choice if Calvino wanted to barge in on the dinner table talks of Silicon Valley titans with youthful minds around 2020 because Hofstadter was young and *GEB* won a big award. Calvino wanted us to write about *GEB* when we write Consistency, the sixth reminder for our millennium, and vice versa. In fact I would argue that he forced this to happen, which is to say, made it impossible for it not to happen within any vague clump of foreseeable future years.

The word "search" or "re-search" is a key pun in "A Musical Offering." It is also another name in Italian for fugue, i.e., "ricercare" or "ricercar." Chapter IV explains this. Therefore one could say even that finding things at random, on say a walk, isn't really random, is it? It's a set of probabilities playing itself out, like the I Ching. One nice effect of randomization is that it can help interrupt or buffer counterproductive patterns. The value of novelty is in its counterweight to obsolescence. It makes sense then for the next moment always to be empty.

One source of great conflict and damage, much wasteful, in human history is the spectrum of problems around contemplative aesthetic beliefs. These are not easy to fix and perhaps the difficulties are part and parcel of the growth. Looking for a panacea isn't always a clever idea but it's hard to imagine the planet doing well without any learning, insight, or improvement at all. Sometimes a productive balance can be found that does represent progress; if one rejects that idea completely at all times this could be too simple and even too proud. If there are shoulders of giants among us do we really want not to stand on them?

Let a functioning contemplative aesthetic in our actual lived lives be the very definition of survival, in the recursive sense that "doing this is surviving" and "surviving is doing this," and not flighty unscientific nonsense at all. Why does a fly bother to get up in the morning if not for reasons that are at least partly contemplative and partly aesthetic? Imagination is thus a medical necessity, an inevitability rather, both inner and outer, in the immediate and the future term. Humans are going to do it one way or another so how we choose to do it matters. It affects life on the planet, sometimes for good, sometimes for bad, sometimes a lot and sometimes a little. It's part of the atmosphere, the air, the water, and even the soil, of the inhale and the exhale, vessels and neurons, wind, rain, and snow. Streets and parks are a part too.

If the Anthropocene is the age of human consequences, and the amelioration of their toxic effects on health of living things, i.e. the planet, so our sense of agency might do well to consider Hippocrates. This would call also for rightful doses of humility in the physician and honor of right practices in the medical profession. Agency means not just a bureaucratic office but how we carry ourselves and treat each other. Why not be healers? One doesn't have to be

in charge of other people to do this. It's a simple kind of group adaptation to environmental conditions. Even fungi release little fumes of mist to do their part to help the roots of trees. What a relief just to live like the soil and the water! Just asking the question of what healing is is a meaningful start. It doesn't have to be accomplished all at once, known all in advance, imposed, anarchic, or really any one thing ever. The process allows many modes and points of view and this is a great advantage, like Proteus, Athena, Artemis, and Mercury all participating in the complexity of the planet and its waters and lands.

Social is the new smoking, and though to my own great regret I never achieved the opportunity to have children if I did I would possibly advise them not to smoke tobacco as I did with such relish but they probably would anyway, because what do I know?

Graphic 5: 11/3/2020



Web log 6

## The Mindful Mona Lisa: Consistency, Completeness, and Geometry

By Max Herman  
Thursday, 06/18/2020



This is the sixth in a series of blogs about "[the Mindful Mona Lisa](#)."

Getting back to mindfulness: what is it, and how does it relate to the Mona Lisa?

The Mona Lisa is a portrait of mindfulness; which is to say, a portrait of present-moment awareness. If we're not mindfully present when we look at the Mona Lisa, we're not really seeing it. We're seeing the ideas we have about it -- executing instructions so to speak -- which is a different thing. Leonardo's vision of mindfulness, however, is contextually rich and uniquely his own.

What did Leonardo know about mindfulness? Did he write about it? I believe he alluded to it when he wrote "Wisdom is the daughter of experience." By experience (*experientia*) he meant direct observation and enactment, in art and science, including perception and expression. Yet the purpose of the Mona Lisa is not just to articulate this for us like a schematic. We are also to feel it ourselves *while we are looking at the painting*.

*Experientia* is the state of being which Leonardo viewed as the core and essence of human awareness and hence the foundation of art and science. Mindfulness for him did not just mean breath awareness meditation. Nor did he mean simple empirical evidence, like data. He meant rather what many mindfulness researchers are discussing today, i.e., the fully interconnected context of mindfulness and what happens in our brains and lives when we practice it. The Mona Lisa compares mindfulness to flowing water, to erosion, to geologic time, to our human acts of art and engineering and their long troubled history, to what we know currently and have known—mistakes and all—and what we might learn. The painting is an integrated vision of individual mindfulness, mindful interaction between mindful intelligences (ours, his, and the Mona Lisa's), and the history of the actions and products of that intelligence.

Consistency is an important concept when we think about mindfulness. In Godel's Incompleteness Theorem, a complex system that is consistent with itself can never be complete. It's always evolving and being created in time to some degree. Therefore the future is not fully determined nor can it be. As Leonardo said, "Art is never finished, only abandoned." The Mona Lisa is that in each of us which is not set in stone, which can see and learn, create and express, communicate and change. It can heal and be healed, and can find justice, peace, and love.

Italo Calvino left the final chapter of *Six Memos for the Next Millennium* blank except for the title, "Consistency," echoing the title of chapter four, "Consistency, Completeness, and Geometry," of Hofstadter's *Godel, Escher, Bach: an Eternal*

*Golden Braid*. Both books are about art, science, consciousness, and isomorphism (hence category theory).

Leonardo wrote: “The water you touch in a river is the last of that which has passed, and the first of that which is coming. Thus it is with time present. Life, if well spent, is long.”

Next week: mindfulness and neuroscience.

## Essay 6: 11/4/2020

Two errors on my part to point out here – I often misspelled “*esperienza*,” Italian word for “experience,” as “*experientia*,” which is the Latin translation. Also, I was told by a Leonardo expert who has been kind enough to review some of these speculations that the image I chose for the June 18<sup>th</sup> blog is probably not a self-portrait by Leonardo. These kinds of things are a little bit interesting, that we don’t know who drew a drawing maybe, or who is depicted in it, but we do care and do want to know the truth.

Perhaps it would take a lifetime to fully study all of Leonardo’s work and life, and all of the commentaries that have been written about them. Sorting out the factual from the false could take decades. That is not my primary goal in this book, to be the greatest Leonardo expert ever, to know and understand everything about everything he did, and what it means, how to talk about it, how to think about it. I’m just proposing one hypothesis basically about the meaning of the bridge in the Mona Lisa, the garment, and the concept of *Esperienza*. I will try to cite good information when I can but to have top-notch scholarly essays like those which I have found since becoming interested in proving or disproving my hypothesis in this book isn’t really realistic.

This is more of a story about how I got the ideas about the garment being present-time art and technology, the bridge representing the flow of this history of art, science, and *techne*, and their juxtaposition by Leonardo with the living breathing portrait of *Esperienza*. Maybe this is just a fiction, and I should treat it as such. Perhaps it isn’t provable, but it depends on what you consider proof. What if there is a little snippet in a corner of one of the thousands of pages

of Leonardo's notebooks that reads "*un portrait d'Esp. et le Monde – mon oeuvre nonpareil?*" and we know it was by Leonardo's hand? Would that be proof? Or if there were a snippet stating "the hand becomes the sleeve; it is here." I would like to learn Italian and pore over the many books and manuscripts, but often life throws us into a crucible that doesn't have such opportunities in it. We find the ones we find.

Calvino did have time to study Leonardo, and had some ideas, and my reading of those in his *Six Memos* prompted some associations, and one fine afternoon on an airplane I thought I saw something happening in the painting. The character of the moment is what I found so compelling. Perhaps you have had such a moment in your life, such as when you were in school studying something difficult and it changed from incomprehensible to understood. Maybe there was a relationship in your life, a romance or a parent-child relationship, a friendship, or a professional collaboration where at one point there was nothing and then there was something. Let's call this "experiences that led to something much richer, a profound unfurling-forth of meaning heretofore unimagined." Something *changed*. I don't know if you've ever had any experience like that, where something changed, and you changed, and you knew you were different but in a good way. A lot of art and literature is about this kind of change which is almost "becoming what you could be, rather than just what you might have been." Maybe call it "personal growth." Or even you could call it "growing up," but if it happens when you are forty or thirty or sixty it isn't really growing up strictly speaking.

Something happens and you notice it. It becomes a part of your experience, and it resonates. There isn't much more that you can say about it at first, but there's an inner sense that "there are a lot of connections here – a lot; I should pay attention." You sense that

something is different about this scenario, and your brain starts to fire off “remember me” neurotransmitters, or dopamine, or what have you – ask a scientist what happens – and you simply are different after that. Remember me is what you heard.

Then I go to look it up on the internet, because I just felt mildly clever – I solved the riddle and can go to the back of the book or turn the page upside down and say “oh yes I got it right, the bridge means the history of art and science like a flowing river that connects humanity to nature.” I assumed it was one of the basic ideas, and I just felt proud in that small minor way one feels at finding a crossword.

Then I looked it up, and no one had ever proposed it before. The scholarship on the Mona Lisa was extremely vague, almost as if people had never even looked at it. Of course trying to look up “what does the bridge in the Mona Lisa mean?” won’t find you hardly anything at all. Mostly travel agents and people who went on vacation somewhere and took some personal photos on a bridge of themselves, or ate at a restaurant called Leonardo’s and forgot to leave a tip and felt horrible but went back and had a cappuccino and then felt better. To find out what the bridge meant took more effort, though as the first blog says I later found Zwijnenberg’s idea recorded in the 2012 issue (or one of them) of the Leonardo da Vinci Society’s newsletter.

My methodology after finding nothing then became to contact some university professors. Their email addresses are on the websites of the universities. You look for people whose research area includes “northern Italian renaissance” or “Leonardo studies” and send them an email. The email read something like this:

“Dear Professor A, I am a writer and artist living in \_\_\_\_\_ and I have gotten an idea that the bridge in the *Mona Lisa* is meant to represent the flow of the history of art and science into the garment of the present state of same, worn by the embodiment of human experience (which Leonardo called “*Esperienza*”). Do you know of any writers or scholarship which might be helpful in researching this?”

Many will answer you. They may say “contact the famous ones like A, B, C, etc.” Or, they may say they have no one to recommend but best of luck. Or they may say “that really doesn’t sound reasonable but best of luck in your research.” You’ll get either some type of answer, or no answer. You don’t have to take my word for it – try it yourself! Go on to an internet search engine page and type in words like “what does the bridge in the *Mona Lisa* mean?” or “professor who studies Leonardo” or “universities in my area.” I shouldn’t have to spell this out for you. Get an email address for a local art historian and send them a question. Then go from there. You don’t have to believe me at all, and I would be mortified and horrified if you did believe me based just on the fact that I wrote a blog or two. People can write blogs and lie, or misrepresent, or just not know much about what they are blogging about. Do not trust me! Trust your own experience – your own *Esperienza*.

I walked by the river again today, it was very smooth like glass. I tossed a small pebble in and could watch the ripple emanate outward perfectly out to about a twenty foot radius. Each wave in the ripple left a nice sharp line of light on the bottom of the river. The pebble I tossed was greenish gray and about the size of a quarter. It’s still in the river somewhere; it would have to be, right? The cottonwood leaves are getting silver-brown and very rustley. Yesterday I picked up some garbage and put it in one of the garbage cans up in the park. Today

it was very warm and I even waded for a few seconds but the water was icy cold. It's been icy here several nights or even a couple of weeks already during an icy October month.

Mindfulness didn't mean to the Buddha, arguably an actual person, if in fact he was one, what it does to you and me. To us it's the name of a section in our workplace wellness website. It's on products we see at the home furnishings store on the novelty rack or on clearance. It's a topic discussed in research papers. Maybe we hate it, because it's not rigorous enough for our personal professional situation to allow us to like it. Maybe we like it. Maybe we understand it as a kind of behaviors people can do to manage stress, a la Mindfulness Based Stress Reduction. I started my journey of meditation simply based on book called "Teach Yourself Meditation" and I only read a couple of pages of it, in the late 1990's. Before that I mostly did beer and marijuana meditation. The book said "just sit and be aware of your breathing for a while. You don't have to try or do anything odd. Even just being aware of one breath is enough. The more you do it, the easier it is and the more you get out of it." I had wanted a simple easy practical practice and that was it. I didn't need to study more. That worked fine. Since then I have studied a little bit more, but the basic breath awareness worked like a charm from day one.

I would also do, since a young age, poetry meditation you might call it. Really liking poetry would be another phrasing; or finding various things hypnotically interesting like twigs, water, pebbles, frogs, grass, piles of leaves in the fall, pets, and the like. Those were childhood impressions, yet in high school I was struck by *Lord Jim* and some other readings. Music was very nice too, but I never had too much skill at playing it myself. Learning the conic sections and drawing those was nice, and even writing out nice derivatives and integrals neatly for math class was or could be entrancing in a way, enchanting. I would call this "an aesthetic

experience,” and one that I had in college, one of many, was reading Keats’ letter which stated “I, too, am a poet.” I wasn’t a poet of course, but I liked what Keats was saying. I liked that he was being honest about something he cared about. I liked when he wrote “before my pen has gleaned my teeming brain.” I wrote a poem in my head one time when I was in-line skating around a lake. It went something like:

Window, gate, or shelter, house or brain,  
 Keeping spirits safe and feeling well,  
 A place to visit or to hide from pain,  
 Where others visit, one another tell  
 An ending place, or start where nothing fell

That’s all I can remember. But writing it had a meaning for me. That’s all I’m trying to say about seeing the two rivers, the horizon, the bridge, the spiral shawl, the hands, heart, and face, the painting having a full structure like an armillary sphere, which I had seen many fine examples of in the Galileo museum just earlier that year of 2019 in June, well, it resonated like an image. All I had really wanted to do, had set myself the goal of, was to try to make an image in my mind – to make an effort, to make the effort, and your mind and even heart know when you’ve made the effort. You can feel it like a breath of fine oxygenated air. You get dopamine, and sometimes, you feel that you have finally done something that has meaning, and you write down on a notebook after five minutes are up “I figured out what the *Mona Lisa* means!” Even if it wasn’t new, it was new to me – that’s the point. And I earned it. I made the effort, and I earned it.

I expected to feel good about myself, about reading Calvino, and about Calvino, about visiting Florence, about visiting the Galileo Museum in Florence, and seeing the Duomo, and the

picture of Dante on the wall of the Duomo, and going up high to the Michelangelo Piazzatella or something, and seeing the horizon, but also about the copy of the Codex Leicester (highly abridged, with commentary) that I had gotten from the Galileo Museum gift shop. I expected to feel good about having done my homework, I suppose. But I did not expect to have been the first person in history to have ever speculated that the bridge is at the core of the meaning of the painting. I thought I was just paying off some of my debt to culture accrued over years of laziness and slovenliness, of thoughts which were vermin bred of the sweat of sloth, of endless fronds of ivory ivy, ivy which Leonardo pointed out means rebirth or longevity. Why would he write down in a notebook “ivy means longevity”? It’s just the tip of the iceberg. Many people never saw an iceberg or even heard the word “iceberg” before and could care less.

I wanted to mention John Shearman’s book *Only Connect*, in which he discusses “transitive painting” or painting in which the spectator is a part. (The *Mona Lisa* is a case of this, because – apparently – of the suggestion that the viewer has walked on to the balcony where the sitter sits and she has turned to look at us.) Not Cervantes, who is the painter? Velazquez, *Las Meninas*, that is another example of it. It’s an interesting idea. Anyway, I’m not sure why I wanted to mention Shearman or that he was recommended to me by a Leonardo expert. Perhaps just to say, you find things, and then you see something, and say “gosh maybe that little spell of euphoria I had about the spiral shawl wasn’t total madness. Hmm.” I felt that way about seeing that the spiral shawl was known to be a reference to water vortices. If that part of my illumination, my epiphanic tray-table revelation, was accurate then why would the rest of it need to be false and evil? Of course some Leonardo experts said I was, kindly stated, not correct.

One expert replied that he only knew of one person who had written about the bridge – Carlo Starnazzi. I bought Carlo’s book, Starnazzi’s book, *Leonardo from Tuscany to the Loire*, and he had a bit in there about the bridge. I took that into account. I digested the data. It didn’t disprove my hypothesis at all. Heck, it even supported my hypothesis, didn’t it? Then the Zwijnenberg. That was three matches, not possibly a coincidence. At this point I don’t see where I’ve done any grievous errors.

As to the being mindful part, why do we have to have this hyper-specific definition of “mindfulness”? Marcus Aurelius wrote a book called *Meditations*. Are we to say that Leonardo cannot have ever known about meditation? The Italian is what you would expect: “*meditazione*.” I would warrant this appears in Leonardo’s notebooks, this word.

I was looking at an old poem today called “Lapis Lazuli,” which begins with a misogynist slur and moves on to even bigger and better examples of slurs. Yet it was in my Norton Anthology of Modern Poetry. Was this the same Norton for whom the lectures Calvino would have delivered had he not passed away in an untimely fashion were named? Perhaps not, or if so, perhaps not relevant. But in that white paper anthology, with a red and orange Klee on the front of a man in a hat, were many poems including “Sailing to Byzantium,” which I memorized on the cold streets of Wisconsin in the dark winter nights of 1990, and “Lapis Lazuli,” which I did not memorize, but liked something about. Those were cases of thinking “this is beautiful and worthwhile” and “I, too, am a Poet” or at least I like the sentence “I, too, am a Poet.” Those were emotional experiences with a linguistic element and yes a visual element and a body-feeling element, to use a technical term, proprioception or interoception which my research group is looking into with regards to mindfulness meditation using art and literature. It’s like a

body-feeling when you really memorize Sailing to Byzantium, or Desert Places; or really, when you first successfully recite Desert Places in full in your mind (quietly, unspokenly) on a walk on a cold winter night in Wisconsin, you get a body-feeling and remember something like a gray stone wall you were walking past, reciting the poem:

Snow falling and night falling, fast, oh fast  
In a field I looked into going past  
And the ground almost covered smooth in snow  
But a few weeds and stubble showing last.  
The woods around it have it, it is theirs,  
All animals are smothered in their lairs,  
I am too absent-spirited to count,  
The loneliness includes me unawares.  
Yet lonely as it is, that loneliness  
Will be more lonely ere it will be less,  
A blanker whiteness of benighted snow,  
With no expression, nothing to express.  
They cannot scare me with their empty spaces  
Between stars, on stars where no human race is.  
I have it in me so much nearer home  
To scare myself with my own desert places.

Then the poem is over, and you burst into a sort of joy.

Graphic 6: 11/4/2020



Web log 7

## The Mindful Mona Lisa: an Eternal Golden Braid

By Max Herman  
Thursday, 06/25/2020



This week's subtitle is adapted from *Gödel, Escher, Bach* (1979), Douglas Hofstadter's Pulitzer prize-winning book on art, consciousness, and intelligence.

I first read *GEB* just this year, while researching the many sources cited in Italo Calvino's *Six Memos for the Next Millennium* (1985). On reading *GEB* I realized that chapter four, "Consistency, Completeness, and Geometry," shared many themes with *Six Memos* -- too many to be a coincidence, especially since Calvino specifically cites Hofstadter. These themes include labyrinths, incomplete works (like *The Art of Fugue* and *Life: a User's Manual*), isomorphism, category theory, the nature of consciousness, interfusion of visual and verbal imagery, multiplicity, geometry, and more.

*Six Memos*, a quick read at 124 pages, was still unfinished at the time of Calvino's passing. The sixth memo is unwritten and we know only its title, "Consistency," and that it was to have discussed Melville's "[Bartleby the Scrivener](#)" (itself a parable of consistency and incompleteness). We may certainly wonder, without needing to know for certain, whether Calvino left "Consistency" intentionally incomplete (perhaps knowing that his health was failing like Bach's and wishing to leave us with a suitably challenging puzzle)

or merely meant to write some memos in Italy and some in the USA. The new mathematics of “equivalency” based on categories is an apt enough comparison for this kind of analogic indeterminacy which allows multiple compositions and interpretations of the fields in question in which a range of possibilities all have relevance meriting consideration.

Network neuroscience like that of [Olaf Sporns](#) strongly echoes Hofstadter’s statement in *GEB* that “the key element in answering the question ‘What is consciousness?’ will be the unraveling of the nature of the ‘isomorphism’ which underlies meaning.” In *Networks of the Brain* (2010), Sporns writes: “The shape of cognition, the nature of the information that can be brought together and transformed, is determined by the architecture of brain networks. The flow of cognition is a result of transient and multiscale neural dynamics, of sequences of dynamic events that unfold across time.”

Clearly any complex information-processing system must strike a balance between work and rest, novelty and baseline, hence the essential role of both sleep and active rest (mindfulness) in brain function. Mirror neurons help create empathy and analogy with people, faces, and phenomena outside ourselves in an “eternal golden braid” of similarity, difference, and equivalency.

The [Mona Lisa](#) is Leonardo’s integrated, aesthetic embodiment of these interconnected truths which in our often rote efficiency we have managed to mistake for separate compartments of reality. His devotion to the dynamic unity of art and science, and his sense of the fragility of both in the face of history’s brutal indifference, informed both his encyclopedic notebooks and his goal of preserving their content and power in portraiture.

Leonardo wrote, “My little work will comprise an interweaving of these functions, reminding the painter of the rules and methods by which he may imitate with his art all these things – the works by which nature adorns the world.” He also wrote: “Art is never finished, only abandoned.”

Next week: more network neuroscience! ☺

## Essay 7: 11/5/2020

Yesterday I learned for the first time that there is a wheel in the second cupola of Joseph in the Cathedral San Marco in Venice. It has Islamic geometries in it. I learned this for a serendipitous reason, which is a word derived from a story about three (I think) traveling princes from the land of Serendip who find many lucky beneficences on their traveling path. Often these chance good lucks are of the type where one thing turns out to be another, surprisingly, but most pleasantly, usefully, or educationally. Patience seems to be at the core of their journey, but also movement.

The serendipity yesterday was that I had sent an internet link to some art work to some friends and the page was formatted oddly, not by me but by the art hosting group, at first, and had been improved. I was also thanking someone who also writes blogs for Leonardo. In any case, after emailing this person, who studies Islamic geometry in art and its theological implications as well, well after writing the email but before sending it, I had a bodily sense that the book they had recommended to me – Howard's *Venice and the East* – was just a couple of feet away from me on a shelf and I had barely skimmed it.

I opened the book to write a "PS – thank you for the book" and mention something in it, hoping to find something apt, and after opening randomly to page 80 then browsing forward to page 88 found a perfect image of a wheel from the second cupola of Joseph at San Marco. The text mentions how the wheel was a mnemonic device for memory, mixing narrative and image, in the medieval time greatly valued by among others Chaucer and the users of the *rota Virgili* or "wheel of Virgil." This is of course related to Dante. But the image of the wheel is quite

wonderful, in mosaic, or as one could say “as in the gold mosaic of a wall, come from the holy fire, perne in a gyre, and be the singing-masters of my soul.” The wheel was, as I was advised by a Leonardo expert, likely viewed by Leonardo (in the general sense of Islamic geometric patterns) in Venice around 1500.

The wheel consists of an 8-pointed star in the middle, from which radiate outward a number of pillars, every other pillar being capped by a half-circle like half-links in a chain. I was interested to learn that “by rote” means “by wheel,” and that there was a specific wheel for Virgil or by Virgil. I had already looked closely for wheels in Calvino but had only been able to find the millstone he alluded to by way of Giorgio di Santillana who was a historian of science at MIT, Calvino’s friend, and his host during a visit to Cambridge that actually took place when Calvino when he was younger unlike the one which sadly never did take place, or if it did only in our and Calvino’s imaginations, which is itself most absolutely an occurrence of a type.

Wheels were relevant to me a bit disproportionately as the origin of, perhaps, the research group about meditation and neuroscience and art which I got an impulse to try to start while at the meditation conference I attended in 2018, November, after having started reading *Six Memos* in February or March. The venue of the conference was designed with a lot of indigenous art and geometry, being on land owned by the Pima who live near Phoenix, Arizona. I did not know what the circular image was – I had of course seen it many many times here in Minnesota, and always wanted to learn about it, but hadn’t as yet – so I asked a speaker at the conference who was wearing a piece of beaded art with the circular image on it what it meant. They explained to me briefly that it was called a “medicine wheel” or “healing wheel.” Of

course this seemed relevant to me, at the time especially, because I had been thinking a lot about the circular image.

The first *Solstizio Calvino* was based on circular images from architecture like the Pantheon and the Coliseum, as well as the quasi-circular images of the brain, astronomical charts having circularity, and brain images which are somewhat circular, and maps of cities like Piranesi's of ancient Rome (which kind of looks like a circle). I'd always been interested in the concept of process as opposed to object, at least since a pamphlet I wrote as a frustrated (but happy) housepainter in 1994, so a wheel that was not just a wheel but was a medical principle was interesting. Also coincidentally, as one sometimes does on trips, I was taking a lot of photos trying to find a "thread" or be more present to my visual surroundings and had been impressed by an art work in the Minnesota airport which depicted a lovely river scene – in mosaic – with an eagle and deer, a forest, and a turtle with the circle image on its back as I had often seen it but also with a blue spiral of water within the circle which I had not often seen. So then to learn what the circle image was, what it meant, and seeing so many examples of it at the venue, over an extended period of time during the conference when I was trying to experience, not as a professional whatsoever but as a vacationing technical worker who wanted to get back to art and writing, the inter-relationships among meditation, neuroscience, art, and literature, created something like a resonating assemblage of experiences. Not to give one's self a headache over connecting and connecting, but just to say "this is interesting" and let it be visible enjoyably and then subside into memory in its own way.

By further chance I learned at a holiday meal in the winter of 2018 that medicine wheels were also built as large stone circle structures across the United States. In a later case of

interesting learning, either after or before catching some unimaginably beautiful yellowtail fish in the Sea of Cortez in March 2020 – just as the pandemic was appearing – that there are arrows made of stone pointing travelers to the medicine wheels in Wyoming, where our fishing companion lived. On the fishing excursion, while we were looking for a place where the fish were, I drew out an image of this *Mona Lisa* theory to try to see if the fishing companion would tell me that I was very ill, very rude to mention it, and needed to get help and think very hard about my choices and the rabbit-holes I allowed myself to burrow into and ignore growing up. But they did not, and it was an enjoyable memory which led to further memorable conversations and ended up being OK.

The wheel in the second cupola of Joseph in the Cathedral of San Marco in Venice is a marvelous mosaic which I would one day like to see in person. There is of course a reasonable chance that I never will. Yet I can still imagine it moderately well and can view good photographs of it. I don't know if *sutta* means wheel, but there was a great lecture at the meditation conference in 2018 about meditation and the neuroscience of pain which quoted a *sutta*, and to my understanding the wheel is quite relevant in Buddhist teachings.

I have been keeping fairly well to my goal of meditating a reasonable amount each day while writing this book. The goal is to have one moderate-length session of about thirty minutes, and one or two other sessions of five minutes, each day. This has been refreshing and helpful in reducing my somewhat large accumulation of pandemic stress from being cooped up and what is worse, acquiescing to that much more than is really called for. When I meditate, I often use a candle to brighten up the sometimes cold and dark Minnesota elements and place a small metal statue of the Buddha in front of the candle. I don't know if this aligns with

recommended practices or not, but I feel the statue is a friend of mine in a way and a teacher – a guide. The statue is holding a bowl in one hand, which I learned at the excellent Buddhist art collection here in town means beneficence, and pointing to the earth with the other to indicate staying grounded. I also love the statue of the god of poetry in the Eastern Art collection because the god is placed upon a carp turning into a dragon, which is a metaphor about becoming a poet which I take to be greatly encouraging and frankly just pleasant in much the way it is fascinating to see when walking by the river the turbulent cloud of sand and the disappearing tail of a carp who saw you approaching before you saw it.

My small metal statue, just two inches high or so, sits upon a lotus which in turn sits on an inverted lotus, the way it would look if you saw a lotus on the water with its reflection below it. This also represents something about the process of how your mind opens over time if you let it, i.e. by not overscheduling it with constant activities like TV and radio but allowing it to breathe a little sometimes and flush out the toxins. It's not counterintuitive that a mind full of stressful thoughts would close itself off a little to avoid getting too toxic. Or as Blake wrote which seemed so interesting to me as a freshman in college in his *Proverbs of Hell* "the cistern contains, the fountain overflows," though I had very little idea what the full ramifications of Blake's work for my literature experiences would be and still might yet become.

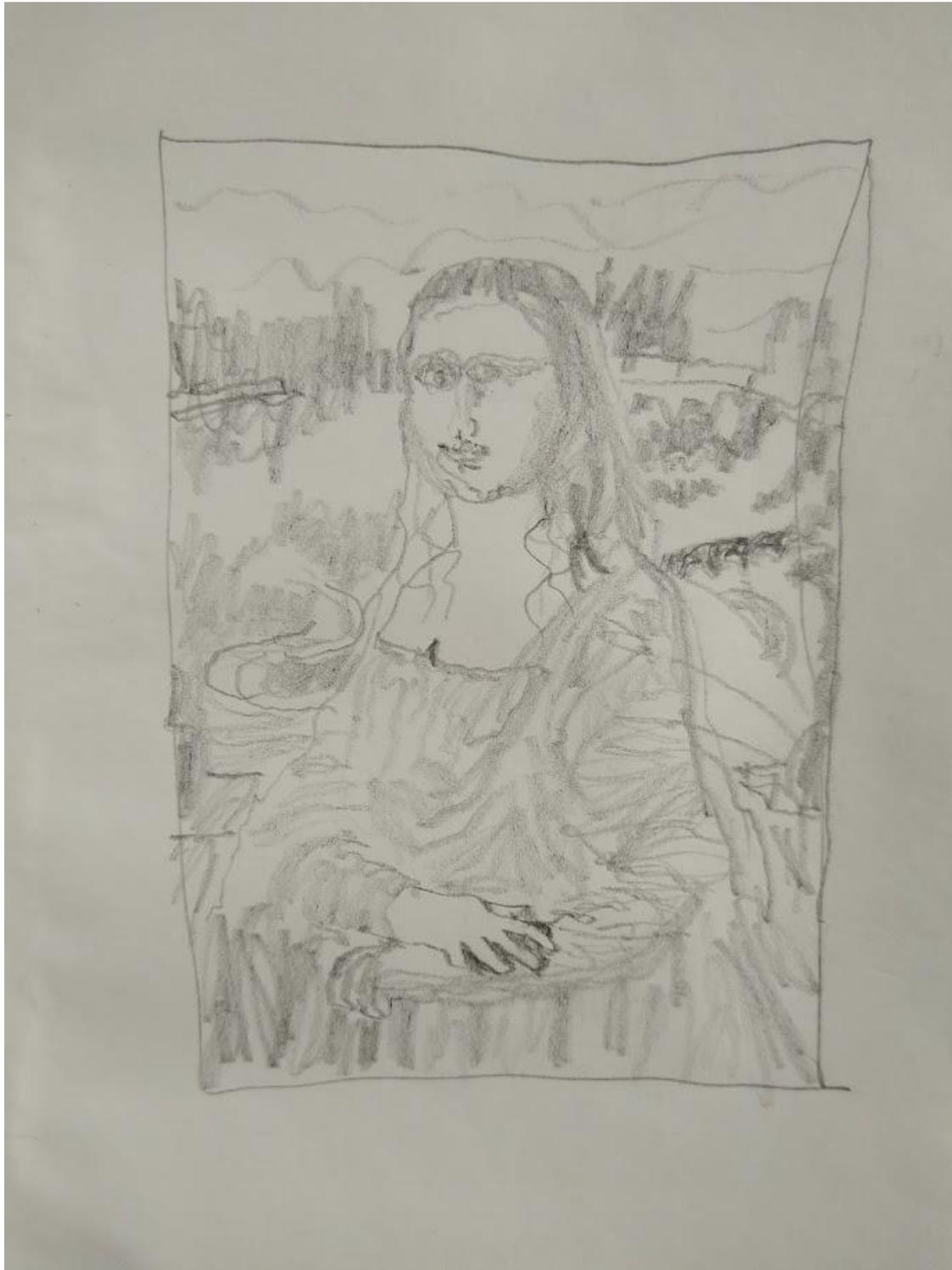
I don't remember where I bought the Buddha, but I had it in 1997 when I lived in San Francisco so there is a reasonable chance I bought it in a shop in Chinatown there. I would carry it with me as a lucky totem sometimes when I traveled and I still do, to remind me to meditate as well as for other connotations I do not consciously understand. It's just physically

peaceful yet active to do so. Sometimes I take it out and meditate, like in a hotel room for work conferences, or just leave it out in the room on the desk or something.

Calvino makes mention of two important Italian writers from ancient times, Ovid and Lucretius, though I'm apprehensive that Lucretius may have been Greek even though Lucretius is not a Greek name to my ears. Ovid's book in particular is about changes that all flow together in a sense – not literally, which would be a gross misperception – in the contained sphere of the universe or at least our world. Lucretius is about atoms and everything being in motion. These are important ideas to Leonardo as well, and I believe it has been proven that he read these books and kept them in his library and talked about them with the other book-discussers of his locales in life.

The neckline of the *Mona Lisa* has two images of linked rings, bordered by two vortices rotating in the same direction. These are braided. The wheel in the second cupola of Joseph resembles the linked rings, but in halves, like the half-arches of the bridge (an image that Leonardo often sketched in free-floating fragments in his notebooks). Sometimes a missing element in a sequence keeps the sequence going, like the Fibonacci perhaps, which I know how to spell but really don't have a right to imply knowledge about. I barely know what it is. The future has not happened yet, and that is an incomplete figure perhaps par excellence. And perhaps it should be, and we should stay aware of it, and when our bodies stop being aware of it they get out of balance, as Philip Glass called it "koyaniskaatsi," I think, and imbalance – or too much balance – can stagnate those phenomena designed to flow. Like blood through the organs, much of human behavior needs to flow in rotating cycles or it will sicken and die.

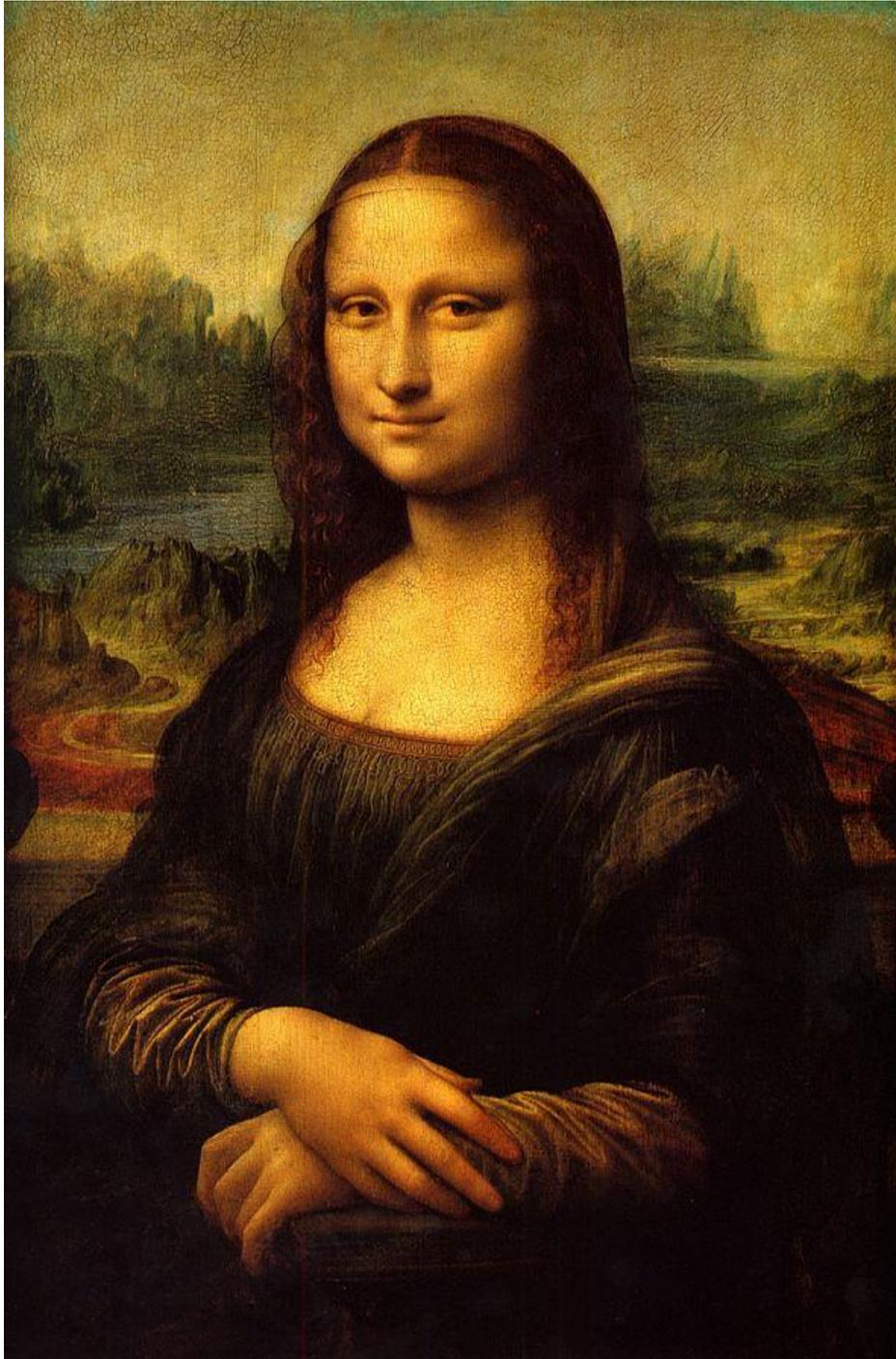
Graphic 7: 11/5/2020



Blog 8

## The Mindful Mona Lisa: a Calvino-Hofstadter Nexus

By Max Herman  
Wednesday, 07/01/2020



ONE reason I became so interested in Leonardo and the [Mona Lisa](#) in 2019 was that I had been studying Italo Calvino's 1985 book *Six Memos for the Next Millennium*, in which he quotes Douglas Hofstadter's 1979 book *Gödel, Escher, Bach (GEB)*:

“Where do they come from, these images that rain down into the fantasy?... Nor is it only poets and novelists who deal with this problem. A specialist on the nature of intelligence, Douglas Hofstadter, does a similar thing in his famous book *Gödel, Escher, Bach*, in which the real problem is the choice between various images that have rained down into the fantasy: “Think, for instance, of a writer who is trying to convey certain ideas which to him are contained in mental images. He isn't quite sure how those images fit together in his mind, and he experiments around, expressing things first one way and then another, and finally settles on some version. But does he know where it all came from? Only in a vague sense. Much of the source, like an iceberg, is deep underwater, unseen—and he knows that.”

Calvino examines how the visual imagination interrelates with the verbal, and how the words of a story the writer wishes to tell (what Dante called *fantasia*) conjure images, or conversely, how the writer may sometimes have a visual image in mind then describe it in words. (*Six Memos* discusses Leonardo's short poem about a sea-monster in this manner.)

Reading *GEB* for the first time a few weeks ago, skimming the table of contents for connections to Calvino, neuroscience, literature, meditation, the *Mona Lisa*, or “Consistency” (the mysterious title of Calvino's sixth memo, planned but not completed before his death), I noticed chapter IV: “Consistency, Completeness, and Geometry.” To my amazement it discusses several central themes of *Six Memos*: [isomorphism](#), fugue, incomplete works, labyrinths, and more -- far beyond any possibility of coincidence.

This direct yet hidden reference by Calvino to *GEB* chapter IV is a crucial nexus overlooked by current Calvino scholarship. I have informed Dr. Hofstadter of this hypothesis and he replied that he is aware of *Six Memos* but has not yet read it, so further knowledge-sharing is needed.

Last weekend I discovered that *GEB* chapter XX mentions vortexes and braids (which relate to the *Mona Lisa*) including what Hofstadter calls "A Bach Vortex Where All Levels Cross" (i.e. the six-note "Endlessly Rising Canon"). This also could have meant something to Calvino since the *Six Memos* were to be delivered as exactly six Norton lectures at Harvard.

The introduction of *GEB* may contain the most important clue of all: it tells the story of J.S. Bach's [Musical Offering](#) to Frederick the Great in 1747, secretly titled "RICERCAR" meaning "to seek," also "fugue," in Italian. Could the *Musical Offering* be to Frederick the Great as *Six Memos* is to the USA, a virtuosic challenge from the spirit of art and science to the power of wealth, not unlike the Mona Lisa itself?

Chapter IV states that "The ten canons in the *Musical Offering* are among the most sophisticated canons Bach ever wrote. However, curiously enough, Bach himself never wrote them out in full. This was deliberate. They were posed as puzzles to King Frederick. It was a familiar musical game of the day to give a single theme, together with some more or less tricky hints, and to let the canon based on that theme be 'discovered' by someone else."

If this nexus indeed exists Calvino has bequeathed to writers today an urgent and possibly endless, if joyfully redemptive, task.

Next week: [analogic consciousness](#) and the [applied category theory](#) of [Georges Perec](#).

## Essay 8: 11/6/2020

Science sometimes proceeds by happenstance. Not only by happenstance mind you, but neither does it proceed only by diligence, method, training, conferences, test tubes, PhD committees, and the like. Many will tell you that one or the other is insignificant, but in truth both are significant and in a complicated mix of ways.

One example would be if someone was at an outdoor social gathering and said “topsy-turvy isn’t it?” about a recent sporting event, say, and another person said “What?” “I said ‘topsy-turvy isn’t it?’” but the other person heard them say “topical ointment.” The second person may have been a materials engineer trying to figure out a way that a ceramic surface can avoid static electricity and realized that a viscous layer of say gelatin could do this job at temperatures similar to the outdoor picnic at which they were serving a clear scarlet gelatin. [This is a reference to Austin’s *Chase, Chance, and Creativity*.]

Even a stodgy and control-minded group like the Rand Corporation has asked a group of thinkers and writers to speculate what might be some unexpected, unpredictable events to affect the global security landscape twenty years from now, in two-thousand-forty. There were items like water wars in the list, crazy permutations of artificial intelligence, and some other things if I recall, but also “there could be a new religion.” A new religion? That didn’t make sense to me. Now I have some sense, since reading that article a year or two ago, about conspiracy theology rising to the level of a major and militant system of chosen belief, congregation, and worship. Certainly other religions could be imagined, but for some reason I don’t really see much, let’s say, theogenesis going on – the emergence of new theologies, like

parthenogenesis, which is a word I have forgotten the definition of. Something to do with cells splitting off? The Parthenon? Mysterious.

I can't really understand what one could mean by a new religion and the phrase itself is odd. A new way for science and art to interact though, that makes sense to me, and is a kind of belief system that is chosen rather than specified by simple proof. How this would affect the security profile of the nation isn't clear to me, because we already have lots of such stuff already. Maybe a cult of a certain political personality type would count? But we've always had personality cults in politics. If instability is a risk for the planet, then perhaps theological movements that increase or decrease instability would have an effect on risk. The history of ideas sometimes proceeds by happenstance as well, though of course never only by happenstance. Call this the course of aesthetic events if you will.

Diagrams may or may not make sense here, but my reading of Calvino led me to Leonardo (and Galileo) in 2018, then Florence in 2019 led further, and hence a hypothesis about a bridge. The Calvino also led me to read *GEB*, and to listen to a couple of Bach pieces I hadn't listened to that I can recall previously. Therefore as I return to the paperback Vintage edition of *Six Memos* and notice A, B, or C, I may be attracted to look at the *GEB* or at the *Mona Lisa*. "Bartleby" is a story about the agony of unfulfilled communication, both one's own and that of others. Calvino certainly (beyond a reasonable doubt, or at least, consonant with what a reasonable person would conclude) left a rather heartfelt and profound message for Douglas Hofstadter, who as yet hasn't read it. I have no business to say who should read what. But what is the cost here relative to the benefit? What is the risk and reward profile? What is the

return on investment? I may only be able to image a universe in which Hofstadter reads the *Memos*, but even such an image is an existing phenomenon.

Admittedly I have added in the Calvino-Hofstadter Nexus in part simply to account for thoughts that are often present in my mind without necessarily being relevant when I think about the *Mona Lisa*. Maybe Calvino has nothing to do with it, and I should take a break from the potential parallels. That seems fine to me. On the other hand, if you are trying to teach an intelligence, and you pose it the problem task of interpreting the *Mona Lisa*, what is the difference if you pose it the simultaneous task of interpreting why there is no chapter written for “Consistency,” and ask the intelligence to propose a hypothesis about how these two tasks are related? That course of events, that curriculum or “chariot-track,” is different one could say from just the task of interpreting the *Mona Lisa* alone. Maybe not better, but different, yes?

Leonardo has a quotation which reads something like “painting is poetry which is seen but not heard, and poetry is painting which is heard but not seen.” The translation and origin here are relevant. It could be a linked chiasmus, as in “AB-CD-BA-DC.” The A-B-B-A chiasmus is “linked” to the C-D-D-C by the first half of the latter being placed within the two halves of the former. This could all be totally fake, a mistranslation, a quote that doesn’t exist, or heaven knows what all else. Yet it might be an aspect of Renaissance Italian sonnet rhyme scheme which was no more odd or mysterious in 1505 than “*e pluribus unum*” is today. It could have been glaringly obvious or even cliché, not that that would be a condemnation necessarily. The rings in the *Mona Lisa*’s neckline embroidery are linked like this – many circles all linked in a row. There are also two vortices or simple twists (as opposed to braids of three or more strands) each rotating in the same direction (as opposed to pairs rotating in opposite directions,

which are often seen in Leonardo's drawings) in the neckline embroidery. There is also a more subtle and fascinating knot pattern discussed by Kemp and Landrus.

I don't know if one can characterize the more complex neckline embroidery knot pattern as a chiasmic chain, but to me it makes sense as one (though I also see a graph of cotangent, or saw it rather, in the right side silhouette of the sitter's veil and shawl even though cotangents may not have existed in 1503 – I just don't know, yet). The chain is "simple loop, simple loop, simple-invert-sideways-sideways, simple loop, simple loop, simple-invert-sideways-sideways, simple loop, simple loop, etc. It's interesting to learn about knots and such so even just as a fun activity to provide the brain with stimulating puzzles it's a harmless pastime I look forward to enjoying even in my golden years.

We often think of meditation as something we do alone. Did I mention the butterfly-weed yet? That may have been a dream or a fantasy I had while meditating. It's a poem about someone picking up dried hay in the afternoon, after someone else cut it in the morning. Do they work together, or apart? Meditation is subject to the same fascinating and quasi-quantum tension. When I meditate, am I meditating with the Buddha? Are we both actually rather "being meditation" which is a thing not subject to time variances of the scale of that between 2020 and 2500 B.C.E. or whatever year it was that the Buddha lived? I'm thinking 500 BCE now. The question of meditation in groups, either in space like a building or pilgrimage or time like morning, month, century, and so forth, is a valid question. The image of a line of rocking chairs all rocking separately at first, but then settling into rocking in unison comes to mind. I forget what causes this. Call it "birds of a feather flock together."

An isomorphism is a word I learned by some combination of Calvino, Perec, and my math friend in the research group who told me about applied category theory. He thought it might be a way to inter-relate the topics and participants in the group. Perec mentions it on page 7 or 10 of his novel, and so does Hofstadter in *GEB* chapter IV. It has something to do with changing, like “A changes into B” or “the items in group A change into the items in group B.” I’m still learning what it’s about. But when I asked my math friend’s math friends about what in math might compare to a chiasmus, one said “anti-isomorphism.” Coincidentally, there is a unique form of chiasmus (which I have already mentioned many places not sure if here yet) called “antimetabole,” which is a subtype of chiasmus A-B-B-A where both A’s and both B’s are the same word as opposed to a regular chiasmus like “free and happy, joyful in liberty.” “Metabole” means change, and morphism means change too I think. Another coincidence, or maybe something relevant.

It is said that Charles Darwin was just at a dinner party one night and his brother-in-law said “what if everything’s random and it’s just dying that picks the color of feathers? Please pass the gravy. God my knee is sore I should never have played you in tennis Eleanor you cheat! It drives me batty.” There’s a Chaucer poem I like and re-read from time to time when I’m feeling low, it says “the truth will deliver, it is no drede.” The I Ching is random, so to speak, but if you use it a bunch of times it may actually acquaint you with the major varieties of change or morphisms that we see in life – getting older, arguing with someone, adopting a pet, a river flooding, dawn, leaves falling to the ground, and so forth – which end up being quite well balanced if chosen at random. Its title means “The Book of Changes,” and what are songs but a series of changes? Ovid’s poem is titled *Metamorphoses*, so in a way one can view the world as

the set of all possible entities and the set of all possible changes. It's not amorphous at all, like a globular blob, but full of rich detail and fabric like a forest.

Today is November but feels like May or even June. Yes, it is odd.

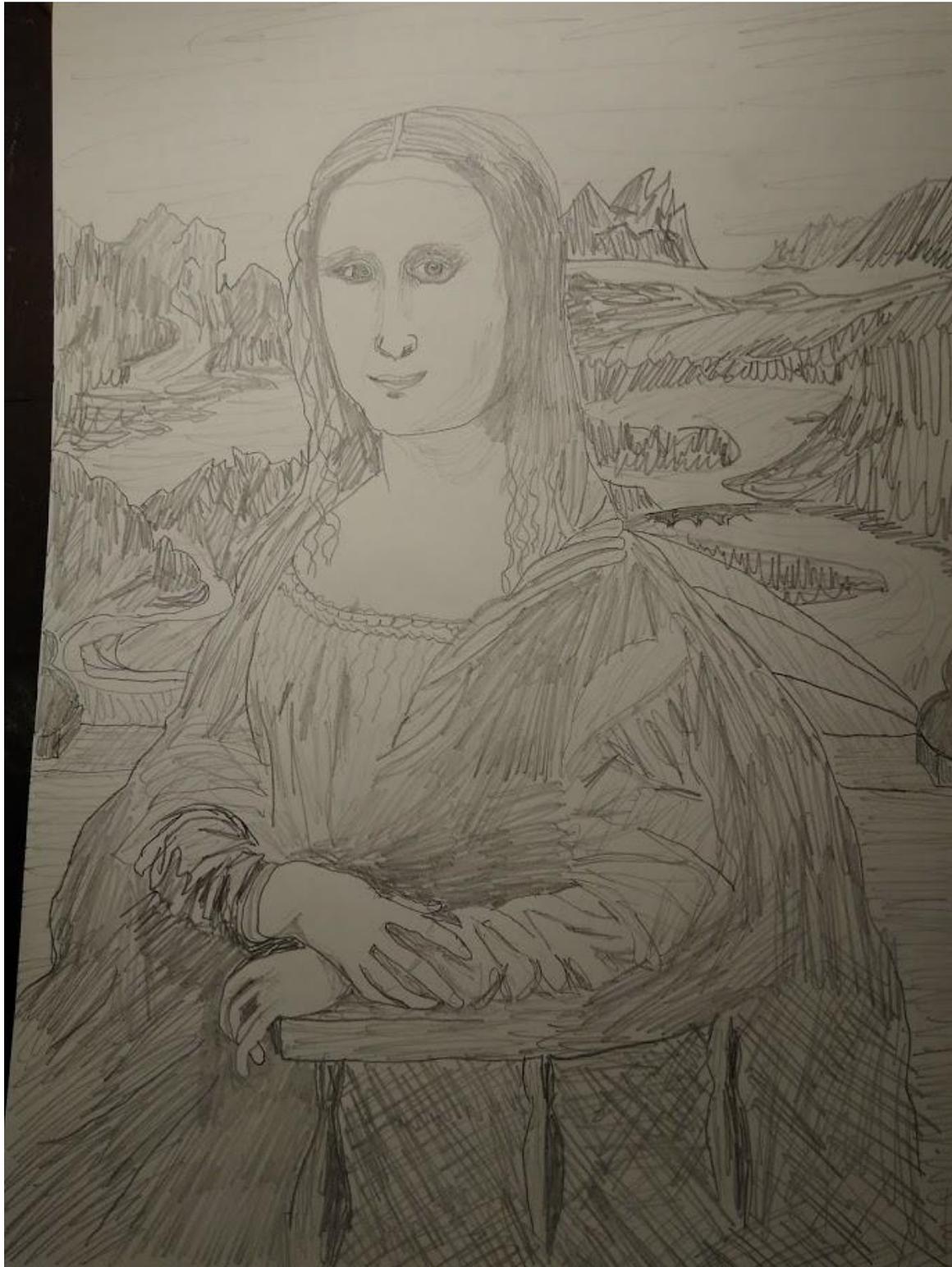
Suppose that Leonardo wanted to capture a vision of the cosmos and our place in it, in some way to help this great project of that kind of work that still goes on to this day. He had no vast venue to do this like Michelangelo did in the Sistine Chapel. Leonardo applied for many of the same commissions and jobs that Michelangelo did, but Leonardo was sometimes viewed as less reliable or some such thing. I always liked Michelangelo better, for being down to earth, one of us, but now I think Leonardo was truly one of us too and in his way sometimes even more down to earth.

Lacking a great venue, could a painter aspire to putting such a cosmos into a simple portrait? I can empathize with that attempt. Other artists and writers have tried to do much with little, and asked the question "how much can I do with how little?" That is one of the most interesting paradoxes out there. Why can one sometimes do so much more with so much less? Being aware and calm in perception and expression can be part of it – mindfulness or the meditative state, to activate the Default Mode Network, and many other networks of the brain which don't simply "hop to it" when hollered at. The pectorals do not simply do so when commanded "bench press three hundred pounds now" while the commander takes a nap. In any case, most commentators about the *Mona Lisa* see, now, the geology, the study of water, the study of light, optics, and anatomy, as elaborated in Leonardo's scientific notebooks as the structural materials of the cosmic map that is the painting.

The evolution of the planet by ocean, tectonics, and erosion is mapped out. Some paintings of the era were taxonomically encyclopedic in terms of flora and fauna, such as Botticelli's *Primavera*, but not this landscape. It jumps straight to construction, the action of human art upon the stone and water. What could be a greater rotational symmetry than this? (I just saw on TV last night that capuchin monkeys know how to crack open wild cashews with stones but only if their progenitors teach them as they have for three thousand years in Brazil.) Something knocked the flowing of water and geology off its accustomed course; it diverted slightly when it collided with hominins. The human is another important part of the cosmos. (A map of the cosmos may include humans, or geology, or water, or include all of them, or some of them, or none of them.) The garment is even a further permutation of how soil grows grass for sheep for wool and water turns the mill to spin the yarn, which is woven into cities. The soil may also feed moths for silk and wealth. Yet all of this cosmic necessity is under one condition, that is, the presence of awareness, sight, hands, and heart, of humanity. We are part of the cosmos too. Art is one aspect, science, but never the only.

When you meditate in a room with other people, or learn to meditate in a room with other people learning to meditate, it is different. It's different knowing there was a Buddha, and that the Buddha smiled.

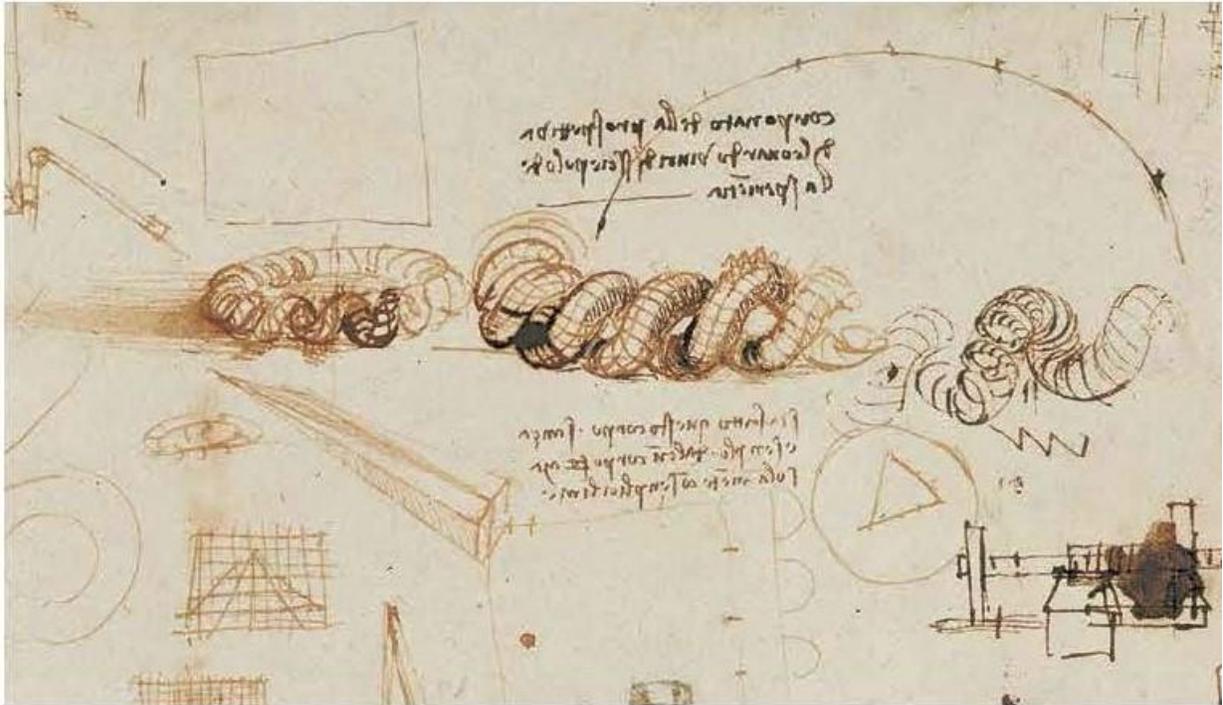
Graphic 8: 11/6/2020



Web log 9

## The Mindful Mona Lisa: Symmorphosis in All Things

By Max Herman  
Friday, 07/10/2020



IN conversation yesterday with a retired Cambridge University professor of biology and systems physiology I learned the word “[symmorphosis](#)” which is defined as “the regulation of biological units to produce an optimal outcome.”

Interestingly, he mentioned this in response to my question whether the embroidery in the [neckline](#) of the Mona Lisa’s dress reminded him of anything in science.

My question triggered his memory of a 1995 [symposium](#) at Ascona, Switzerland in which the concept of symmorphosis was discussed. Because each “link” in the “chain” that makes up a certain biological process (like oxygen uptake) is connected to the others, each will have similarity in certain limits or parameters. For example, the blood will not circulate faster than the lungs can deliver oxygen. Conceptually this resembles interlocking gears, where each gear must advance by the same number of teeth in order to stay connected.

Douglas Hofstadter has recently expanded on his idea of the “[strange loop](#)” to include [analogy](#) as a core process of consciousness. The human brain and mind work by way of pattern and comparison, allowing us to apply existing knowledge to new situations. A classic example is Newton’s apple: what could have remained a piece of fruit was transformed by analogy into the physics of gravitation.

Importantly, analogy is not just a learned symbolic technique (like long division) but is intrinsic to how the brain naturally processes information. We are, in a sense, analogic entities built on a biological platform which is interwoven with a multiplicity of natural processes. This is how “strange loops” or self-referential and self-modulating systems with non-linear cyclicity (like the brain's [Default Mode Network](#)) can form and evolve. Symmorphosis helps demonstrate that analogy is not just a symbolic capacity of intelligence but a property required of any self-balancing process (such as [morphogenesis](#)).

Does the [Mona Lisa](#) demonstrate symmorphosis? Most certainly, if we accept a broader and more analogic definition of symmorphosis which can apply to the interaction of rivers with geology, our own interpretive eye contact with the sitter, the relation of engineering infrastructure (the bridge) to the present lived technological environment (the garment), and indeed the microcosm/macrocosm analogy itself. Even the behavior of the cells of the viewer’s brain is analogically symmorphic across time with the behavior of the cells of Leonardo’s.

Analogies between the Mona Lisa's hair (and garments) and [water vortices](#), the rivers and veins, and so forth are [widely accepted](#). Leonardo stated that his overall method in art and science was “*comparazione*” or “*comperatione*” i.e. comparison. It is certainly logical and consistent to seriously consider the possibility that the [bridge](#) in the Mona Lisa's landscape is also an analogy, and one which harmonizes with the artistic intent of the others.

[Applied category theory](#) (ACT) is also based on comparison and analogy (to form categories) and [isomorphism](#) (applying rules to sets) to map complex systems behavior in time. Perec uses ACT in *Life, a User’s Manual* to create a novel patterned as a network system of metamorphoses. Hofstadter also grounds meaning in isomorphism. Integrating symmorphosis in this context can further clarify the systems biological characteristics of human and other natural fabrics we are trying to create and understand – with Leonardo’s help.

Next week: back to mindfulness!

## Essay 9: 11/7/2020

Writing this by the river, I can hear the loudspeaker of the rowing sculls. It's close to sunset with wispy white clouds in a blue sky, what they call gauzy, but more like flowing rivers of water vapor (which they are). I can see many buildings with many windows, but the waves on the river are why I am here. Might be a loud night tonight but that's OK.

Symmorphosis is an interesting idea, kind of like things coming together or taking shape in concert with something else taking shape, or rather with the environment, amid the environment, of all other things taking or losing shape in proximity. Maybe the whole planet is symmorphic in a way. I was more interested in honoring my friend, who was generous to discuss art with me, than in trying to make too rigid a claim about the *Mona Lisa*. But if the painting is a portrait of the human imagination, and human imagination is symmorphic, then the painting is symmorphic. This rule is called transitivity in category theory.

Are waves analogous to anything, the waves on a river? What about the large slabs of limestone I'm sitting on, they have broken off from a large cliff at some point in the past. Earlier this century, or before? In Leonardo's *Saint Anne*, there is a scale of smaller and smaller particles of rock sketched in one corner; this is called a "granulometric scale." Are the phases of erosion at all like waves? Sound is, and therefore language must be in some sense, perhaps each sentence is like a wave crashing on the shore or just quietly lapping. The idea with symmorphosis though is that things take the form they take in part because of what else is taking form around them – a bit like sympathy. We are what we are in part because others are what they are, even though we are different.

You can't have a network without individuals – it would just be a blob or mass. At some point I thought about all the flowing vortices or braids and twists flowing in a creek emptying into San Francisco Bay, and what they would look like if you took a cross-sectional slice. You'd see all the circles, which would look like yin-yang symbols I supposed. Some would be rotating one way, some the other, crashing into each other, forming and dispersing, but having a rather regular form on any given day.

Is this a reason for hope, or despair? In one sense it might suggest that all is predetermined and all must happen a certain way, like billiard balls ricocheting across a table. No nuance at all, no spirit or flesh just clicks. But Gödel theory says no. The universe is too complex at certain levels of flux and complexity; you get turbulence and can't predict what's going to happen based on what is happening right now. This is a hugely important fact in math, but I wonder what percentage of people have even ever heard of it? It's not that complicated to understand and is actually very inspirational, and doesn't need to be controversial. In fact it proves that you can be you and I can be me even if we live in the same country. Things that happen affect us, but not all things are predetermined.

I think Leonardo was trying to tell us there is a band of possibility where our choices in art and science matter. He sometimes refers to this by saying things like "if you want to change the course of a great river, don't try to make it take a sharp turn using brute force; make small changes gradually which can add up to surprising results." In a sense he is saying that we are part of nature.

This kind of thing, these reflections and meditations, are, in my non-expert opinion, what are needed to see what is in the *Mona Lisa* even in the sense of basic content. Then you have to see what Leonardo was saying with the basic building blocks – his inflection – then the subtleties, and also the emotions or more philosophical feelings involved. In this type of experience there is a gestalt quality of things mixing, like when you hear a good song like “Philadelphia Freedom” and then another song after that, “Echoes Myron,” and then you are dancing and spinning all over the room like a top noticing the windows rotating about you. I don’t know what it’s called when various sensory inputs start to coalesce and align so that they get synchronized into something more than the sum of their parts. Harmonization? Harmony? Synaesthesia? Or, when you look at a small branch you picked up by the river because primates like to pick things up in the forest and think “this branch is quizzical” or rather feel that it is. Metaphor could be part of it. Integration is an idea that has some psychiatric or neurological elements to it. How do our memories relate to what we do in the present? They do exert a kind of gravity, which must be a gravity by comparison, right?

I learned a new word today about a kind of language or speech, called “compositional.” Maybe it means unfinished? It’s a neurological term and I haven’t looked it up yet, or at least a medical term. Compositional. Does it mean in progress, like inchoate? Or like Bach? I think “compositor” is a word in printing. I took a printing class in junior high where you put the little metal pieces with the letters on the end into a block, put on ink, and print out the language more or less like what Gutenberg did. Did that take some of the wave out of our words?

Focusing, I’m told, is part of the work the writer must do for the reader, like a polite host. Maybe the *Mona Lisa* involves some analogies, and this can help us interpret it.

Leonardo did write in pictographs sometimes – hi chipmunk! – which is a kind of metaphor or analogy. I see analogies anyway in the ML. When scholars say that the mountains and water are references to Leonardo's ideas of geologic time, they are saying that he uses metaphor. One can worry about seeing everything in something and therefore nothing. I think T.S. Eliot said "the *Mona Lisa* is Hamlet for painters." It doesn't seem that way to me, but neither does *Hamlet* mean to me what it does to Eliot I don't think.

When a non-expert person looks at the *Mona Lisa*, can they really ever see the flowing vortices of the elements and put two and two together if they haven't studied the notebooks? That's a good question. I do think that Leonardo expected his viewers, at least some of them, to have a sense of the basic sciences, like geology and biology, and some sense of math (especially geometry) and engineering. The average layperson does have these today, and should be just fine noticing a fair amount of what is in the *Mona Lisa*. I think that Leonardo wanted not just to say "there is such a thing as art" and "there is such a thing as science," but that we are related to them in a way that mirrors how we are related to nature. But beyond this, he also wanted to emphasize what he thought was most important for us to remember (rather than forget) and work at (rather than be lazy about). He's making a recommendation and stating a need. This is very subtle without clear-cut lines so *sfumato* is an appropriate technique. Leonardo also isn't trying just to be prescriptive and write us a prescription like "do A,B,C," though he did write books like that. In the *Mona Lisa* he wants us to have an experience that in a sense "wakes us up." Wanting us to have this experience of waking up was part of his experience of waking up. He was invested from the time span of years in what we would be up to nowadays, the same way that I am interested in what a person will be thinking when they

read this in five hundred years. Just imagine, 2520! That's a long way off but one thing is certain – it will arrive.

How can Leonardo give us an experience? We have to participate, is the number one concept to understand. It's interactive, even though he isn't alive any more and the *Mona Lisa's* pigments are static. Our participation is expressed by the *Mona Lisa* turning to look at us. We are part of the painting. Shearman would call this transitive, but he felt that the *Mona Lisa* was early transitive and not richly developed. I would disagree, and argue that actually it is fully developed on four levels, the four rivers of transitivity as it were or four directions on a 2D grid. Shearman felt that the *Mona Lisa* defines the viewer, i.e. us, but doesn't particularize us enough and give our experience a finer resolution. This is one aspect of transitive complexity, to be sure. But really, it's not just about the complexity of the role we are assigned. It has more to do with the transitions, the main "moves" or changes if you will in the dance. The *Mona Lisa* recognizes us, we recognize her, and recognize her recognizing us. We instinctively ask "why is she looking at me," and find no answer – silence, nothing being spoken. One could say that "a lot being spoken" is the most particularized, most resolved, most complex and real. Yet the unspoken is the Gödel here. It forces a move, and transition – we have to mobilize our faculties to figure out why she is looking at us because the normal signs are not there. (This is analogous to the vacuum created when we need to figure out what the Buddha is doing, since it isn't something, and it isn't nothing.) We look to context for information, and this is on purpose.

The next change Leonardo has set forth for us is what we find when we look around for context. He knew this could take hundreds of years, and even at five we may be pushing it.

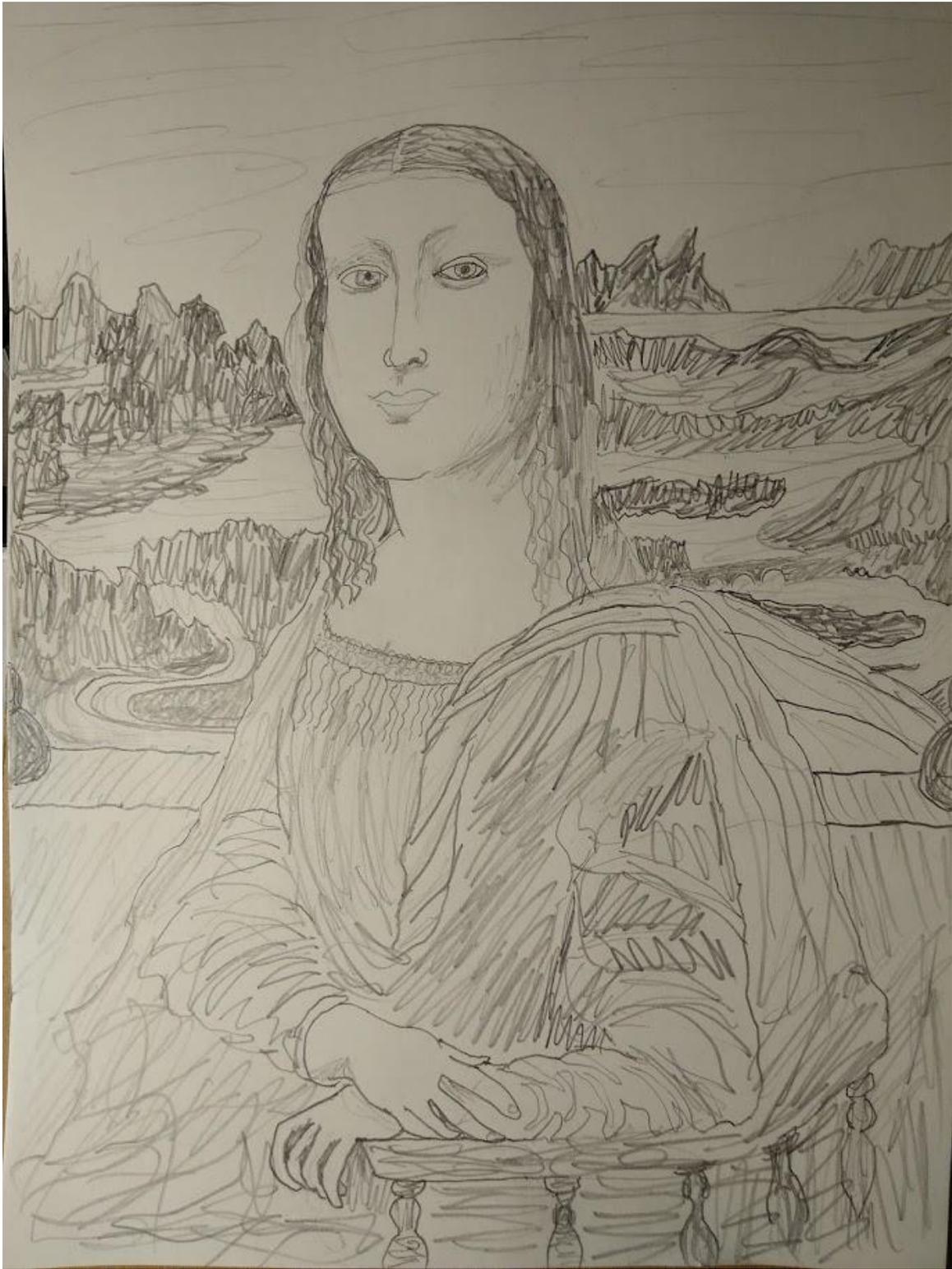
How long would it take people to get a sense of geologic time, and a sense of rhyme schemes, and then to put two and two together, and then notice the bridge? Well he knew it might take forever and he built the painting accordingly. Much that has been built has been built with this sense of time in mind. The viewer would need not just to get one or two of the metaphors, she or he would need to see all of them.

None of the metaphors is so complex in itself; it's the connecting of them together which adds the encryption so to speak. Leonardo also knew that devotional images were not always created and used the same way throughout history. He knew the forms of these uses were a landscape in which his painting would live and wander. The viewers in turn who wandered around, looking at paintings and out of windows, sometimes his, would have looked at some number of devotional images and formed some type of viewing behavior. So much of the *Mona Lisa* is about not falling into type. This is not vagueness however; it is the opposite, which is to say, infinite precision. Infinite precision! The word is like a bell. (Forgive my humor, it's a little tic I have.)

The viewer has to sense the person and the connection, which is unclear; they need to then sense the water and geology, which is also in motion and unclear; they then need to see the bridge and garment in motion but clearer though blending; then they see the person again but with clarity found by triangulation of the first three variables: humanity, nature, and art, all forming the one symmorphic universe. The clarity is the perfect clarity – the perfection that Buddha called Enlightenment, insight; sometimes it is called awakening. It is “experience itself” rather than a particular experience. It's like being aware of your breath, but then just being

aware; that is not the end-all of it but that is the phenomenon. It isn't an object and cannot be depicted, so must be experienced. This is as particular as it gets!

Graphic 9: 11/7/2020



Web log 10

## The Mindful Mona Lisa: Pointing Us Back to Mindfulness

By Max Herman  
Friday, 07/17/2020



What is mindfulness?

One [definition](#) is “non-judging awareness of present-moment experience.”

Another interesting definition by neurologist [James Austin](#) is “remindfulness.” Just as remembering implies a putting-back-together of what has been fragmented, mindfulness has something to do with allowing the

mind to re-integrate itself anew and re-balance to baseline. Sleep is essential to this restorative process, but waking states (such as activation of the [default mode network](#)) are also necessary.

In Zen tradition, reminders like birdsong support the practice of mindfulness by returning our attention to waking contemplation. Another form of Buddhist practice, the [koan](#), is sometimes said to be “a finger pointing to the moon.”

The role of mindfulness in neuroscience, and hence in art, literature, and all human networks, may prove to be the most important story of the 21<sup>st</sup> century.

If mindfulness is fundamental to brain function, perhaps art has less to do with objects and more with something like "our experience of ourselves, our relationships, and the world when enhanced toward its healthiest possible state by the full practice of integrative mindfulness." What if aesthetic experience is in the brain of the beholder, which must be shaped by mindfulness in order to perceive true beauty? Artworks then function best as guides and pointers, rather than vessels of content we consume.

The *Mona Lisa* engages with mindfulness on many levels. We see the painting best when we are in a mindful state. The sitter herself is represented in a mindful state, an imagined embodiment of "experientia" (which Leonardo called his guide and teacher, stating he would "[in every case, give her as evidence](#)"). Still further, the painting portrays in compact form all that Leonardo discovered and created by making mindful experience his guide: his knowledge of geology, hydrology, engineering, painting, optics, and astronomy; visual truth, beauty, and communication; psychology, society, and history; indeed humanity's very ability to learn and improve itself. We are shown all this through an embodied aesthetic experience -- as with indigenous or Buddhist practice -- not by analytical description.

Earlier this week while considering the hands, it struck me that the right hand may be pointing ever-so-subtly to the left sleeve. Several Leonardo [paintings](#) include pointing hands more or less prominently. The hypothesis that the *Mona Lisa* is pointing, however, is a brand new one that could profoundly alter how we interpret the work.

Why point to the left sleeve? I've suggested [previously](#) that this portion of the image may represent a grafted braid or vortex like the shawl and neckline embroidery. Pointing to it says: "What you think you have seen isn't enough. I'm pointing to these folds of fabric that enclose the left arm of the sitter." Their meaning could be multiple: fabric, interwovenness, torus,

folds; intersection and rotation in space; or even the point at which art and artist meet, passive and active, yin and yang, past and future.

Such a synaptic [clinamen](#) would echo the classic admonition “temet nosce,” or could even (to indulge a flight of poetic fancy) portray a finger-touch akin to the contemporaneous masterwork by Leonardo’s lifelong peer and rival: the [Sistine Chapel](#).

Next week: imagination and mindfulness

## Essay 10: 11/8/2020

Seeing a painting afresh is not always a bad thing, particularly with a painting that has been around a long time. Leonardo knew all about how commentators and experts, what he called “authorities,” could be completely blind to what is in a work and equally dictatorial about what they think it’s about. It’s an odd element of humanity that we are so inclined to bossing people around and telling them what to think. Even just economically, that’s inefficient (if we apply a kind of “lemon law” to ideas). Caveat emptor, as it were.

The idea that the *Mona Lisa* is pointing, at all, is another hypothesis brand new in this blog. You may laugh, and I welcome that, but it is true! No one has ever proposed it before my amateur musings in the spirit of affection happened upon the idea. If so many other of Leonardo’s figures are gesturing to crossings, why not this one? When I then looked I noticed something ever so slight but physically noticeable, the most subtle of gestures with the right index finger. This was [foreshadowed by] my very first physically integrated response to the painting, I think in the nineties. It could have been around 1999-2001 or so. It’s a feeling you get when you look at the hands and focus on them for a bit without any active analysis.

To get an idea for this, go to a friend you know, wearing a mask and sitting six feet apart, and be aware of their hands. You can both sit at a table with your hands above the table. You can call this “intersubjective mindful hand meditation.” You can each be aware of each other’s hands for five minutes, just looking, sensing, being aware of sensation and body scan,

without talking, in a relatively peaceful place like a green area with plants. It can be outdoors weather permitting.

You may notice the onset of proprioception, which is a word that means to perceive your own internal sensations. You get a feeling by being aware of the other person's hands. They don't have to be a lover or family member. You could even try holding your hands the way the *Mona Lisa* is, with the right or dominant hand holding the left forearm. But the main point is to be aware of the feeling throughout your entire body you get when you are aware of someone's hands. That's the first "feeling" beyond a kind of irksome quizzicality that I ever got from the *Mona Lisa*. The hands are by far the most gentle and fully human – poor word choice – element of the physical body I think.

In addition to proprioception, interoception is key. That's also about inner awareness but it can be of processes (like questioning, worrying, organizing, frustration, etc.) and not just the body sensations of interoception. However with the *Mona Lisa's* hands, my point is just to say that when you are aware of someone's hands in this full way then even slight gestural elements can be sensed profoundly. My original proprioception was not that the *Mona Lisa* was pointing, but more that she was "consciously holding" her left forearm, very gently but serenely, with her right hand. The left is gently resting on the arm of the chair. (In a cleaned image, you can see that the spiral shawl reaches much more closely to the right sleeve than in the actual version.) The holding of the arm is kind of like a self-hug, which is another exercise people do to practice mindfulness in cases of post traumatic stress. You can try it right now if you have a mind to! I would but I'm outside, but what the heck, I'll do it for a minute.

If you are holding your forearm with your hand, try extending your index finger the slightest amount. You will notice a tremendous change. This is important. Now look, or not right now but at some point, at your reproduction of the *Mona Lisa* (preferably on paper when you can manage because we get so very much too much electronic light these days and it has a distractive power all its own) and try to feel if it is pointing. Perhaps “placing the finger slightly upon” is more apt than to call it pointing. Placing, setting, *sistere* as it were is the idea, rather than the clear gestures of *Virgin of the Rocks* (Louvre version), *Saint John*, *Virgin of the Yarnwinder*, of course the *Last Supper*, and *Salvator Mundi*. Is the placement at a crossing? Yes, from the hand to the sleeve. The woven sleeve is the crossing.

You might say this is madness. Perhaps it is. Think of it as a poetic fiction, for now, if that seems less irresponsible. Yet, it could be a matter of importance. You may feel that you do not have time in your busy life to distinguish all of the Leonardo scholarship from all the other Leonardo scholarship to decide if pointing is something relevant. If you are doubtful, but have a few minutes, I would recommend reading Matthew Landrus on the *Last Supper*. Hand gestures are very meaningful and relevant. We read body language just as we read faces, and the body positioning in Leonardo is hugely important – as the *Mona Lisa* is twisting her spine to look at us, the Madonna is reaching out to retrieve Christ from the lamb across Saint Anne, and even the early depiction of the Annunciation. Why in the name of heck would we want to assume that body language and gestures, including hand gestures, are just random in Leonardo? They are the opposite of random.

What if the sitter is placing her finger mindfully on her left sleeve in the *Mona Lisa*? Well, it would indicate the importance of the woven fabric and its shape. It’s a geometry

reference really, but also a technology reference. The “hand” of the artist, as they used to say, is the artist in Renaissance painting, and we write and draw more with our index finger than any other finger. Was it the first pen, the first pencil, the first chisel, the first brush? Almost certainly. (Make we no thesis of the handheld phone.) Leonardo designed costumes based on elaborate themes, events, and spectacles for the wealthy rulers of his day. Clothes had meanings, not least that they paid for the army and navy, their manufacture that is.

I would like very much to learn Italian and live there for a while. Maybe in quiet Siena, where Calvino was laid to rest I think. But those luxuries are not for me. I live in a winter landscape where the ice freezes five feet thick and an hour exposed at night without protective gear means death. That is what I live in. If I were to be able to learn Italian poetry, read Dante and Cavalcanti, Montale and Gadda, then maybe I could understand Leonardo better. What is the word for bridge? It is *ponte*? What is the word for point? Is it *ponte*? Did Leonardo like puns? Did he hate them? One can certainly get too compositional about it but one can also be not compositional enough. It depends on the kind of composition, the time-scale, the intention, the context.

The *Mona Lisa* certainly is set up in such a way that it would seem to contain a lot of information of value, or potential information, or both, if we correlate preservation with a matrix of quantity and quality. Certainly a high quantity of people looked at the painting every day the museum was open before the pandemic. Did they see anything? Debatable. Leonardo would probably be alternately laughing and crying to see the crowds flow by like channels of the Arno, Venetian canals of gondoliers carrying loads of onions and potatoes for the soups of the evening. There could be olives, tomatoes, herbs, and cheeses from the countryside. So

much movement of people and belongings. These entities flow over the walkways and escalators (well not me, but other people) in the museum to see the grand exhibit of the five hundredth. Does the millstone turn, does it produce flour, is it off its axle, cranking out gravel, shattering teeth and firing wails of horror?

I see turning cycles in the *Mona Lisa*. Is mindfulness a turning cycle, like the networks of the brain in their varying modes and rhythms? Networks, it is said, are composed of cycle and path. This is very much how the brain works. There are paths, which have both sequence and repetition i.e. cycle. Stuff doesn't much happen just once in your brain. Maybe in rare cases it does, but if it's just a one-time deal, how important is it for your brain to track to it? Would you evolve to give a rat's patootie? No. Evolution does not waste its time, or its time will waste evolution. There are important reasons why we notice hands, and not just to say "oh those are hands where's my handheld device for me to find my *tykelnesse*?"

Cycle is also about reconstitution, recollection, or as the Zen ancients called it "remindfulness." There are cycles involved, and they are important. Kung-ans or koans are called sometimes "the essence of a conversation, document of official value." This is referred to also as "a finger pointing to the moon." What is the moon? Calvino said in *Six Memos* that he almost wrote a full memo just for the moon, but decided to leave the moon to Leopardi, an Italian poet. This to me is a charming faculty which can allow an evening to have greetings, toasts, dining, eye contact, personal growth, new acquaintance, and mindful dancing all without collapsing in on itself in a heap of self-conscious braggadocio and inanity. Leopardi indicated that the moon was important. The moon does not emit its own light, but reflects that

of the sun. How luminous a truth is this! How humble, and how lightening of our load! I can't wait to see the moon again soon, even in the icy cold of winter's grip.

An indication is a shift of level, a shifting of scope. The *Mona Lisa* is not pointing to the bridge, her hair, the pillar base, or the craggy mountain formation to the left of her right eye. Those parts of the composition are not being indicated. What is? Well, the indication may not be so direct as we might want in our impatient specialist's modern way (obviously not of the best). If it were obvious, there would be no need to indicate! At some point we need to realize that the chef cannot eat the meal for us, much less enjoy it. Are we not people? Yes we are, and we have to be one way or the other. We exist whether we like it or not, whether we take an active role and do anything with the few choices we are allotted, or the many, or not. Leonardo appreciated this, the distribution of incidents.

If there is a field of ten elements, how many indications will there be? Well, it varies with the intent. There could be zero – ten pennies. There could be one – heads and tails. There could be an S.O.S. – heads-heads-heads, tails-tails-tails, heads-heads-heads. Formed in an arrow pointing upwards, they could indicate nickels, and two upward arrows, dimes. Sometimes what is indicated is what is not there – this is the moon. Sometimes the gesture is just a question – what isn't here? What if the *Mona Lisa* is pointing, but to nothing?

Yet it matters not if I'm correct or incorrect about the *Mona Lisa*'s hand gestures (I've suggested two or three or so). Certainly I see things that aren't there, and there are Leonardo experts who would drum me out of their Ph.D. program in a heartbeat if I even suggested an inclination to such embroidery (even though the *Mona Lisa* relies intensively on embroidery to

carry its power into the history of our species). They have every single right to drum me out of their program and I would never in a thousand years wish to impede them from drumming me out. In fact if they didn't drum me out I'd be disappointed in a way – no, if they didn't have the right to drum me out I'd be disappointed. There are many schools of thought on Leonardo and if they all wanted to drum me out I could just start my own, even a school of one might be workable for a while if not forever.

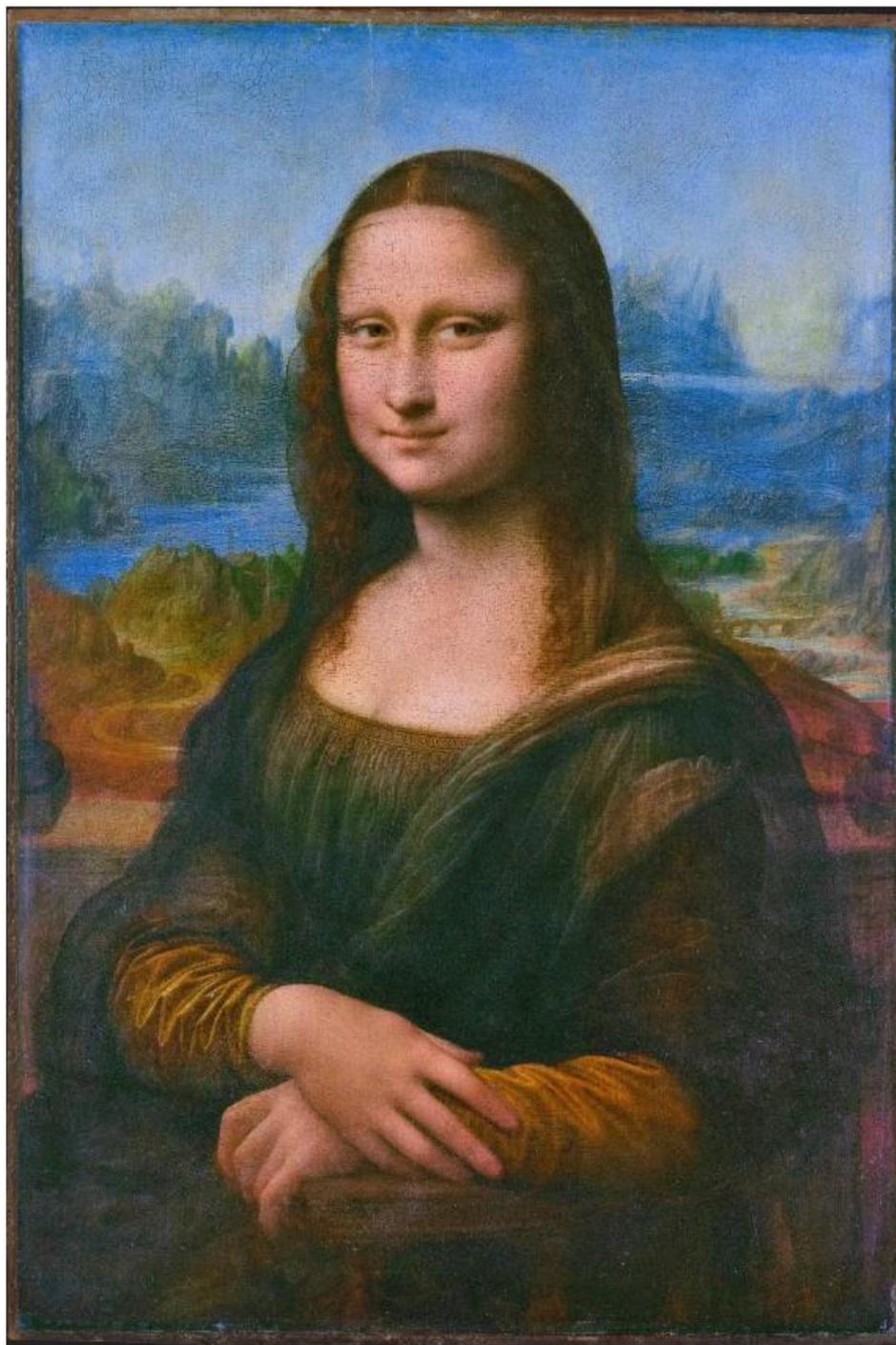
Graphic 10: 11/8/2020



Web log 11

## The Mindful Mona Lisa: A Portrait of Life on Earth

By Max Herman  
Thursday, 07/23/2020



IF you were assigned the task, how would you paint a portrait of life on earth?

It would require some imagination, but all humans and perhaps all living beings possess a certain degree of imagination. (In the field of [relational biology](#) all life has characteristics of “an anticipatory system.”) You can easily obtain a brush and some paint, and find a surface to paint on; and we all know what a [portrait](#) is.

Let us suppose further that you have accepted this task, and are faced with a compelling motivation either positive (to advance the good) or negative (to avert its loss). Your task is not to create a perfect portrait – there are no restrictions on subject – only to create the best one you can within a certain time, say two weeks. If you do the best you can for two weeks you will have succeeded.

Would you paint a globe? A cell? A molecule of DNA? What animals, plants, or inanimate substances would you depict, what principles, dynamics, processes, and histories? Would you include anything human, like an image of yourself or someone you love, cities, or objects of human origin?

When approaching this imaginative task you might take some time to contemplate it calmly before diving right in. Perhaps you would spend some time [meditating](#) or reflecting to better absorb the subtleties of your situation. You might consider your emotional state, your skills and weaknesses as a painter, what you have done in the past, or what others have done.

After a period of calm focus you might let your thoughts wander for a while, picturing things in your mind but not judging any particular image as correct or incorrect, good or bad, trying rather to let your impressions flow freely. Eventually an image might coalesce and capture your attention (such as a human figure, embedded in a vast landscape depicting the key principles of planetary life such as water, earth, sky, the mixing of elements, and continuous change) resonating to become, almost involuntarily, your choice.

Having arrived at your main idea you might take a short rest, to ponder your choice and become sure of it, turning it over in your mind and forming a plan for your work. For the rest of the two weeks you would paint to the best of your ability using both mindful awareness and imagination intertwined as you flesh out your vision in paint.

This would all accord with how your brain works (employing the [default mode network](#), [visual cortex](#), [anterior cingulate cortex](#), [precuneus](#), [posterior cingulate cortex](#), and much more), thus allowing you both true freedom and true fidelity to the world you are part of and portray.

You could then very likely say that you had done your best.

Leonardo said: “Science is the observation of things possible, whether present or past. Prescience is the knowledge of things that may come to pass, though but slowly.”

Next week: spindles and yarnwinders

## Essay 11: 11/9/2020

There is a short piece of heavy-duty steel cable, about a foot long, down at the river. It's about six feet from the river's edge, depending on rainfall of course. It's a little frayed and covered in some algae so you can both see the main strands and sub-strands, down to the finest filament, and see the entire cable as just a single strand. It lies on the riverbed parallel to the current, for a nice side-view.

A week or two ago I was reading Matthew Landrus' section in his book on Leonardo about the *Last Supper*, and how it is composed on the principle of many waves seen in a turbulent flow but from a side-angle. Each person and sub-group of people are waveforms reacting and colliding with the heavy news that has just been revealed. In this way Leonardo used a visual reality to express an emotional, philosophical, and narrative meaning. Definitely, please, do not take my word for it. It's just interesting. The waves run side to side, as if the announcement was a large rock tossed into a pool and we are seeing the turbulence of the impact from the water's level looking at the center of the impact from the periphery. It takes a basic X and Y axis (and Z) grid on center and adds lots of depth and movement.

I only mention this to suggest that observation of water's many forms and shapes can show you a lot of interesting geometry. Also the *Last Supper* has some similar embroidery to that in the *Mona Lisa*.

Yesterday I got to the river late and it was already dusk so I couldn't see the sun directly. It was very warm and a lot of students were at the park, and someone was already standing on the rocks where I like to stand and "get out into the river" a little bit, so I just sat on a rock and

meditated looking straight out at the river sideways. There were a lot of ducks and a little wind so the sounds were good for meditating, and when you are looking at the river stationary like that it's kind of laid out like the *Last Supper*.

Michelangelo said, I think, that "genius is merely patience." I also got this message in a fortune cookie one time, one of my favorite ever as I believe it arrived during a time of pain and confusion. In any case by this I think he meant that we learn by doing, we find things as we go, and imagination is a process of both discovery and invention. It's not something a person "is" or "isn't," any more than going for a walk is something a person is or isn't. There are also theological connotations in that the Divine is the potter, the world is the Divine Wheel, and we are the works. It's not an exact correlation, obviously, but there are similarities which perhaps one could understand as categories of analogy with various changes and dynamics among them. Yet, one need not carry a specific theology to see what Michelangelo means.

I was thinking about the fortune cookie while meditating an hour ago, so I had to let it go but truth be told I knew I wanted to mention it in writing. This is a form of cheating in meditating and writing perhaps, but as long as we let the thought go, observing it as "fortune cookie" then letting it go and returning to the breath it counts as meditation. It would be different if I stopped paying attention to my breath at all and simply started writing an essay in my head instead. I mention this just to say that just after mentioning the fortune cookie I went to the kitchen to get more coffee and noticed while warming up the coffee that my microwave is called The Genius 1200W, with Genius in a lovely flowing script, and has a feature indicator of the word "Inverter" circled by an orbiting atom and its path. Roughly this is the description. I liked this microwave for the price mainly, being a bit above the lowest priced

model, and because it was said to be quiet and my last one was loud. I didn't like the verbiage about Genius however; then seeing the Inverter I thought "well OK that's a lesson I can live with."

As to the Portrait of Life on Earth, I may have been thinking of a PBS program about water when I wrote that web log. The show was about how all the water on the planet could have evaporated like other planets if not for life-cells clinging to it and keeping it here. Such a great show, it provided lovely images of how water moves around the planet and life with it. Maps of the earth and heavens are quite an important subject in human art, so we can find our way around I suppose, and how to plot out the map is an aesthetic choice in such art. Maps are also contemplative, no matter how rapid and efficient one proposes to be. They are meant to be looked at, maps, and not just followed. Do you see in visual terms how different the looking is? Like the difference between a web and a line or arrow.

One article says that the optic chiasm was a major step in human evolution because it helped to mix together the delicious coffee and milk of language and vision. Just think how each enhances and ramifies the other. Maybe water and rock are the parallels. In any case, mixing perceptual inputs and cognition streams into new combinations is a very important part of living organisms. It gives us a grip.

When there is a grip, there is also a letting go of the grip (or else the grip has us in its grip). I saw a solitary carpenter ant at the river a few days ago, and even the ant sees a mix of line and web. The ant carries a decentralized power of detection and choice. There is also the idea of "the shared stomach" in bees which is very interesting, I was scribbling about that idea

this spring or last fall. The same bees change their behavior – forage for nectar or build honeycomb – depending on how much honey the hive has. If a lot, they build honeycomb. If not so much, they forage. This is called “integral feedback” if I recall. An interesting essay which has applications to people I would venture.

Genius as patience also certainly conforms to the network neuroscience model of intelligence set forth by Olaf Sporns.

Would it not make sense that each brain cell would follow the principles of flowing water, since all life and chemistry from the earliest moments of the planet do? Even patience flows like water, through the guiding influence of Time. Time flows, and is not disjunct outside of black holes perhaps. Leonardo said, “where one surface ends, another begins,” in the context of how to paint pictures well, but the sentiment applies to most areas of physics and of course to math.

Thus a portrait of life on earth would involve water, and its primary counterpart rock. You can bring in the air in your portrait by showing clouds say. Do you then add a lot of plants and animals? There are almost too many to include an image of each in one frame. Maybe the best way to include them all, every single one, is to leave every single one out? Then you call upon the imaginative stores of the viewer, very efficiently, as human intelligence is evolved to do, i.e., share. What then does the Portrait need? Humanity? Humanity is certainly a significant part of life on earth. Depict all humans? A sprawling novel could try, or a medieval map of hell heaven and purgatory, or cityscape; but perhaps a painting of only one person also could. Let’s count it as a viable option. What else? Clothing to be sure. Standing, or seated?

Seated. Show the chair? Minimally. Show the building in which the chair resides? Also minimally. Composition complete. It is relevant, I think, in our area of focus that the bridge was added late, or even last. *Ponte, punto.*

“*Esperienza* is the interpreter between humanity and formative Nature,” Leonardo said.

Experience means experiment in the science sense, and expression in the art sense. I should look up the etymology:

experience (n.)

late 14c., "observation as the source of knowledge; actual observation; an event which has affected one," from Old French *esperience* "experiment, proof, experience" (13c.), from Latin *experientia* "a trial, proof, experiment; knowledge gained by repeated trials," from *experientem* (nominative *experiens*) "experienced, enterprising, active, industrious," present participle of *experiri* "to try, test," from *ex* "out of" (see *ex-*) + *peritus* "experienced, tested," from PIE *\*per-yo-*, suffixed form of root *\*per-* (3) "to try, risk." Meaning "state of having done something and gotten handy at it" is from late 15c.

So in a portrait of life on earth one could represent a three-part system of nature, humanity, and art. The sum of these makes a fourth.

My sense of Leonardo as a poet, writer, scientist, and human being is that he liked simple, because by way of it we achieve complexity. Without it you have mush. He was perhaps most distinguished by being genuinely interested in many things from an aesthetic standpoint. He wasn't a geometrician because he only liked geometry and only wanted to do geometry. If anything, he liked liking everything and wrote as much in clear language. His appreciation for simplicity would advocate for a three-part map with a fourth made by the three. That is just my opinion of course! It's just my gut feeling, a hunch, the wisp of an

intimation, the slightest echo of a diminishing negative capability sensing an unquantifiable suspicion. Leonardo appreciated the difference between a simple portrait with almost no apparent complexity and a teeming structure of the most impressive frescoes since time began.

I forgot to check the etymology of portrait again, but I'm pretty sure it just means portrayal: yes that is the case. We would do well not to have to check everything every single time. Adam Smith even said that if we do not use our faculties we become less human, and Sterling cites this as a foundation of allostasis.

To the question of political economy and war: these are difficult questions. The twentieth century saw terrible conflict, slaughter, genocide and destruction. The planet itself suffered terribly, and human suffering may have reached its apex. Centuries prior were also brutal. How will the twenty-first compare? What are reasonable hopes, what is unreasonable, and what can be planned or attempted?

Poverty and injustice are still widespread after all our progress. I cannot claim to have an instant solution – art is not one, science is not one, and meditation is not one. I will mention briefly that I also believe that Marxism is not one, nor is Capitalism, nor is Freud, nor is Nietzsche. Modern capitalism i.e. rational capitalism is a mix of government and markets. Capitalism and socialism are like the coffee and milk of the same beverage. I think their hostility is overdone, and usually with malice aforethought. The human spirit, moreover, does not reduce to analysis or rank. Would it were so, but 'tis not. Sigh. Having had our lucid caesura on the topic of temporal power, what of the ecclesiastic? This perhaps is a larger realm than one's own doctrine of practice – may each be blessed with freedom – and could be

considered a large category including all art, science, philosophy, and so forth, that is, our imaginative activities. I have found no silver bullet in any of those compartments or sub-compartments either.

Yet all is not lost. Seeing there is no silver bullet may not be a bullet, but it might qualify as a silver sunrise. Hemingway felt darkly about this – nada, nada, nada – but there is a relief too in the absence of an imagined quantity. Just think of the morass and torpor if every imagination were fact! Good gracious. Katy bar the door. Buddha sitting under the tree, after literally starving himself almost to death to figure out what the hell was going on, realized: “Oh. Right.” One can spin parables about this, but it won’t change the fact.

Perhaps the pressure of so many human consequences raining down on us will obliterate civilization like the floods of prehistoric myth. The obliteration could be partial though, if we are lucky enough to find the serendipity by way of pluck and cheer. One cannot predict. The pressure might hasten an attitude of simplicity and its attendant gifts, or some of each. Can we allow its hastening, even if we cannot hasten it, hasten the stilling of the pool and the shift of sight?

Calvino adopted an ancient Italian motto as his own: “*festina lente,*” or “hurry slowly.” He mentions this often in *Six Memos*.

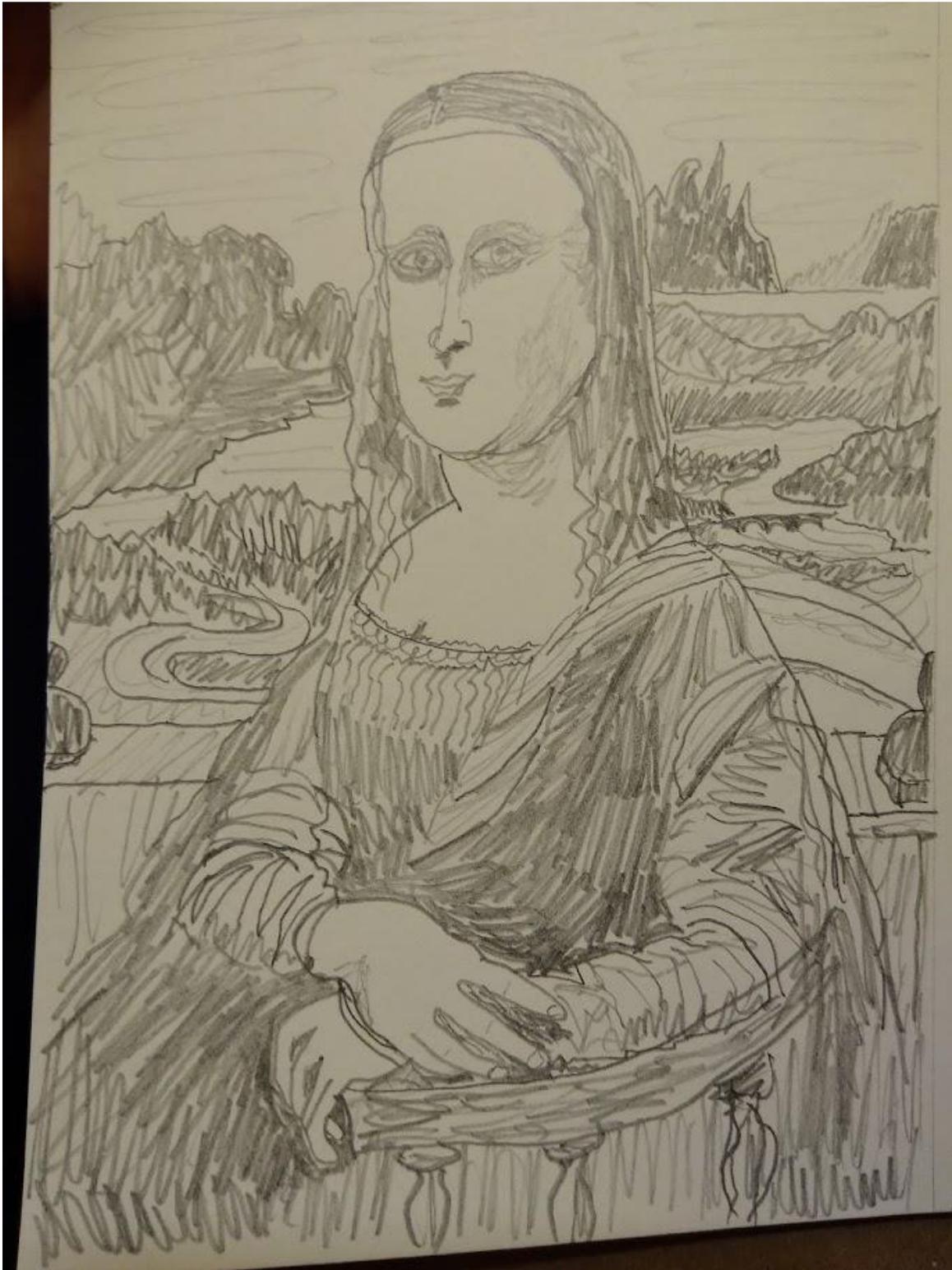
A couple of notes on Greer’s *Less*. I teem with the anxiety of influence, let it be said. What is more, I refuse to beat myself up about it. Influence is a hazard, and hazards should cause us concern. I’m no expert on Bloom and I don’t think I’ve even read that essay, too fifties-Freudian I sensed at one time, but anyway. Call it random choice, but also a concession

of defeat. Greer wrote *Less* in 2017 it appears, and used chiasmic structure, referencing Calvino, Nabokov, Odysseus, Joyce, and some others. Lightness is *Less*? If the next installment is Consistency then I have a problem. There is also an admission perhaps worthy of note that sometimes Teiresias sees only his own web. But Teiresias was both man and woman according to Eliot, a hybrid cross that yielded vast vision.

Healing may be a chiasmic composition. Natural systems have been shown to repair themselves moderately well after great destruction. There may be hope for an era of Green Infrastructure to follow on the Digital, Industrial, Ag, Iron, Stone, and so forth as described by William Janeway in a book I saw him lecture about in 2018 or 2019 i.e. during all of this stone-circle business I've been tinkering with. Baker and Schultz called for a Republican Green Deal. Can there be sufficient peace among the planet's great Powers to work toward this? Can it include environmental protection, the planet, and social justice, the people? Possibly. I would count that as political progress. It cannot happen "by itself" though. Culturally the world may need to do some learning and growing too. Of course, if each of us decides to do our absolute worst on principle we would see hiccups. Indeed it is an attempt or volley. It can be a joyful walk or dance, though, too, and needn't lead off into the distant unknown. Imagine our elders and the young at the performance too. It's strange how odd it feels to imagine that.

By all this I merely mean to be an active listener to Calvino when he says "not only Marxism, or markets, or Freud, or Nietzsche; but not nothing either."

Image 11: 11/9/2020



Web log 12

## The Mindful Mona Lisa: Bridges of Technology and Understanding

By Max Herman  
Thursday, 07/30/2020



OF all the images and ideas in this blog series, the bridge at the sitter's left shoulder is by far the most important.

Everything else I may say is either derived from the bridge and its meaning or meant to shed light on them. A closer look at this week's *Mona Lisa* detail may help to demonstrate this importance.

Imagine an approximate sine wave from right to left, flowing down then back up. The bridge connects the background (of nature, planetary time, rivers, water, geology, and earth) to the foreground (of the human and its garment). All bridges are conduits or vessels of transit, channels for events and information, through which objects or living beings move in space and time.

The line of the bridge clearly flows smoothly into the line of the shawl. The shawl is acknowledged by top experts to represent the vortex or spiral form of water which is so central to Leonardo's [notebooks](#). The neckline follows clearly from the line of the shawl, changing direction slightly upward and creating even further subtlety of geometry, color, involution, and [reference](#). That the organic curls of the sitter's hair echo the shawl and

neckline is well-established [interpretation](#), adding both a visual layer and a new level of comparison to the human form.

Setting my own personal [hypothesis](#) aside, what could the purpose of the bridge plausibly be in this context of the painting pure and simple, existing scholarship, and Leonardo's notebooks? Is it plausible to *you*, in your present-moment experience, that the bridge means -- as is held by virtually all Leonardo scholarship to date -- and furthermore *does*, nothing at all? Is there truly nothing whatsoever happening with this unmistakable element?

After looking at the bridge as I have been, for now almost a year, I sometimes see its image in my mind as a subtle matrix of form and meaning, interfusing its very bricks, arches, and stones, within an even wider array of imagery and concepts in the painting. The bridge connects even beyond the painting into Leonardo's notebooks, and further still into the life of his age and our own. (A similar bridge in the [Madonna of the Yarnwinder](#), the spindle in same, and the [yarn-machine](#) Leonardo designed are also evocative in this connective sense.)

To understand the painting as an interwoven fabric of this sort is, in my view, to perceive Leonardo's work and vision in its full scope and depth. Not to do so is not to see. This kind of sight requires the skills of poetry and art as well as science: metaphor, analogy, and the special sort of imaginative understanding they liberate and make dynamically visible. [Analogy](#) and [equivalency](#), like metamorphosis, inform all phenomena that flow in time.

Leonardo's highest value, human experience -- that which perceives, discovers, and creates -- is the subject of this portrait but crucially is not the painting itself. Like a complex mirror the portrait includes us directly, because we too can experience, and balances humanity at the dynamic center of the evolving interconnections among nature, art, science, and the world we create.

Next week: visual meditation

Essay 12: 11/10/2020

The image of the *Mona Lisa* on the free encyclopedia page is a good one; slightly yet tastefully re-mastered to reduce the effects of aging, and very high resolution so you can see the embroidery. You can zoom in.

The election is still up in the air, well, at least the country is still under stress. It's been called but the outgoing president has not conceded and seems determined to cause havoc. *La plus ca change, plus ca meme chose.*

Last night I went to the river at night. It's dark early now and I had to grocery shop first too. So I saw the river at about 9:00 PM or four plus hours after sunset. There was a strong west wind blowing right to left which made it look like the water was racing downstream in gusts. The reflected streetlights were very beautiful and overall I'm glad I went. The park was cold and empty but lovely too. Smoke was billowing horizontally from the smokestack, right to left.

Yesterday I was trying to read about math as a friend told me that a chiasm is kind of like something called a "commutator" in math. This has to do with Lie Algebras and ring theory. I wish I had more time to really learn about math. Someday! In trying to catch up I read about isomorphisms and how they are about mapping one structure to another. This is not familiar to me. Mapping one coffee cup to another coffee cup? Something like that. You can't map a coffee cup to a water glass because there is no handle, but you can map one coffee cup to another one or a water glass to a water glass. I had the idea of shapes and rings shifting and morphing on my mind.

At night I had some rather memorable dreams. One fragment was about a kind of blob turning inside out, or shifting structure. I wonder if amoebas or bacteria do this. Or proteins? When the blob shifted structure its relation to the stuff around it changed, its orientation say, and I was trying to find words for this change in the dream. One phrase from the dream was “it out-Herods Herod.” You may not believe me, but it’s true. I read *Hamlet* every day for at least a half hour my junior year of undergraduate study because I wanted it to become native to my intelligence, like all the ads and pop songs I had heard *ad infinitum* in childhood. Thankfully this worked at least a little. But the phrase makes little sense unless you warp it, for the context of the dream anyway.

Another image or fragment of logic from the dream was the idea that when you are searching on the internet there is a point at which you are no longer searching for something, but searching for the search – searching for searching. This is kind of what’s happening with the *Mona Lisa* I think. It’s the designed experience. There is also something about Lie Algebras called surjection, I think, about structures shifting forms. I have to refresh my memory about what Lie algebras are – I think they are something like maps about sets of mathematical concepts – and circular – but they relate to the structures of quantum fields in some usages, the various structures of probability for a given set of conditions. Hence it may be that Lie algebras relate to Ovid’s *Metamorphoses*, which we know Leonardo read perceptively even though he had no idea what a Lie algebra is. Or did he? We cannot say that no one before Lie had any even vague intimation of them. They almost certainly did. That’s how math works. One example from Leonardo’s notebooks is that there were some scribbles which no one could interpret on one page and people said they were just scribbles. Then a physics professor

looked at them and realized that they sketched out the basic laws of friction in physics quite clearly. I'll try to remember to link to this item in the endnotes, it was from 2012 or so i.e. pretty recent.

Perhaps there will be similar things we only vaguely sense now, but in the future will be widely known and intuitively understood. That will not mean, even should it come to pass, that we had no intimations.

Technology and understanding are not the same thing, but they seem like they are to our primate brains. We are programmed to think and feel that just because we pick up a stick to do something with it we now have absolute dominion over all events. This is dopamine I think, a burst of euphoria meant to fascinate us with using things as tools. Of course it has very little to do with reality and we quickly realize the twig is just a twig, and that our handheld device is just a handheld device. It's a bit of a shame that global order depends desperately on a fascination with twigs and buying an ever-new twig every quarter or biennium. Maybe we can learn some new economic practices for the new century in terms of how we participate in beauty. To the dominion of the handheld device, I would like to offer the proposition of the hands not holding any device. Because just think, what if the truth is that what we are buying is not handheld devices but device-held hands?

Enough preaching for a while. What I almost lost track of is the idea of bridges mapping. Bridges are connectors, we know that for certain. They are also kind of like what are called "functors" in math or transformations, changes. This is a bit semantic, but consider it this way: taking a bridge changes me from a person on this side of the river to a person on that side of

the river, or a truckload of hay in Wisconsin to a truckload of hay in Minnesota. This is somewhat the function of rivers and blood vessels too. They move things, which is a kind of mapping. The motion of the things moved also causes impact on the surrounding matter which it collides with via friction or gravity. This means that the land maps the river but the river also maps the land. Without understanding the unique power and depth of this idea, which Leonardo fully absorbed on all levels for his job of Master of Water for the city of Florence, we can't really understand what metamorphosis meant to Leonardo. This is my opinion.

Given the importance of metamorphosis and heterogeneous forms, which are like an egg which has both a yolk and a white, why did Leonardo choose to put two rivers in the *Mona Lisa* landscape? Why, to compare them of course. Another bit of information I acquired in my amateur meanders this past week or so is that when you look at the Mona Lisa using infrared refractography, or reflectography, some kind of -ography, you can see there is no bridge in the painting. The bridge was added last. Where the bridge is now, there was a line of rocks roughly the same shape but not connected to the other side of the river. This is an enormous difference! Please try to imagine that you are creating what you are determined to make the very finest portrait of life on earth it is possible for a human to make, on a par with any other map of the earth including all the verbal maps in all the libraries of the early sixteenth century. You have set yourself the highest possible challenge, just to see if you can do it. It's the most natural thing in the world, indeed our brains have to do it or else they get very restless. You don't have to succeed, but you have to try. (As Leonardo said, stagnant water rots.) Inactive minds get fidgety and disruptive.

Imagine also, please, that you have the skills to equal your peers (who have giant venues like the Sistine Chapel ceiling to transform) but you alas have only a tiny portrait. You put your all into it, and it's darn good. You put in two rivers, rocks, mountains, sea, and much else. Your first design is to have a line of hills or rocks flow into the line of the spiral shawl. (I know this because when I was in a rock band one of the songwriters, of which I to my great good fortune was not one, had a song that goes "I turn rocks into cars." It's a great line about metamorphosis, right? But maybe you have to hear the song or had to be there.) Then you change your mind at the very end.

I was thinking about this last night when I was driving home from the park where I go to look at the river. When a master artist or technician adds something significant at the very end, it is usually not random. There is either a problem to be fixed, or a tiny modulation of color or pattern (which does not count as adding a significant new element), or something profound to be added. I was trying to find words for the latter: emphasis, transformation, amplification. It's a bit like an epiphany where the artist finds the amazing elements they couldn't foresee during the original design phase even in their wildest dreams. They had to earn it, and that's what it's all about – earning it.

Adding a significant new element – a thematic one, no less, like changing a ridge of rocks into a bridge – to correct a deficient design or a design deficiency is unlikely in a highly qualified and engaged professional. The original design has been thought out and works. If it was truly defective, the artist would have seen this earlier almost to a certainty. Adding the new element at the end does not, in my interpretation of Leonardo here, fit in this case the scenario "gosh this painting just isn't working – I need to add a bridge." It's also not a change

to the color or pattern in that spot, because the rock formation was similar in color and pattern. It's also very likely not a random decoration, because there are no other decorations in the landscape nor are there always structures in Leonardo's landscapes like the *Saint Anne* and *Madonna of the Rocks*. The bridge is a major compositional choice, but a thematic one.

Leonardo also changed the hands after the point shown in the infrared refractography. The index finger in the final version is "pointing" less obviously, with an incredible grace, and there is no fold of the sleeve visible between the index and ring fingers. The activity of the right hand was made a world more understated which I admire more than I can comprehensibly put into words. The dynamism, or I should say, the dynamic suspension of the fingers of the left hand was also amplified to an astonishing degree – almost like the most subtly stated question in the history of questions. Without the left hand here there is no right hand. They are a virtual *Musical Offering* of richness.

Pretend that I'm not the annoying chatterbox at the dinner or cocktail party trying to pitch this to you even though you are clearly interested in talking to some other people. This will not be easy for you, or perhaps even possible for now. In that case you could think of me as Gregor Samsa or the narrator of *Notes from Underground*, which I was told in 1993 to make my own novel about solipsism, *The Hermit*, more like. Even better would be to discuss the idea of the infrared reflectography with someone who you enjoy, a friend, who also enjoys talking about painting and such. Maybe it would be better not to go directly to someone with a major psychological or fiscal investment in a particular theory about the infrared reflectography or what the bridge means. You could go to the experts later when you want intense, strongly-felt

opinions rooted in decades of publication and tenure. To start with, perhaps just discuss it with a friend or ponder it in your own mind.

To be sure it is a problem that you cannot look at the image I am talking about, see notes for page reference, unless you buy the book I saw it in or a similar book. Not entirely true – you could search the internet for it. I leave the adventure to you. I only exhort you not to passively ask an expert instantaneously. Leonardo would have wanted you to give it a go yourself, first, amateur or semi-educated or just ordinary Jo, before consulting the authorities. In fact he thought that your doing so was the most important thing that needed to happen for the species and planet to avoid ugliness and doom.

The brain learns by forming synapses, in part, and these are a bit like bridges or paths. We shouldn't see this as a coincidence. Memory connects, and leaves traces. The traces fade, thankfully, but not instantly; and they can be refreshed should we choose to do so.

We are also faced, in this hypothesis about the bridge, with the likely evidence that the hand was intended as a gesture to indicate the universal field of crossings before the bridge had come into the picture so to speak. Or put another way, the line of rocks was the bridge, a bridge, before Leonardo decided to turn it into an actual bridge. It was the connector from the map of the landscape to the map of the garment. Why make the connector an artifact? The connector of the finger to the sleeve is not an artifact; it is the synapse of art itself, one dimension of *Esperienza*, its atomic principle or quantum so to say. There is an implied granulometric scale of planet → all created things → the present moment of human awareness. Three levels that match the general structure. It seems to me that as a poet, one

might detect a slight flatness to the metaphor of a ridge of rocky hills flowing into a water vortex of present technology. It's a connection visually, in the geometry of the painting, yes. It is enough to be found. Yet a ridge of rocks has little if any intrinsic directionality. What else could be used? It would have to fit in that spot of the composition and perform the same visual act of cue, yet somehow more harmoniously. The moment at which Leonardo realized that a bridge might work is a wonderful moment of imaginative transformation even if this is just a poem I'm writing for my own edification. He may have realized that no one would likely suspect any meaning for the bridge unless they really dug deep, and he didn't want people to have to dig down to infinity. He was already placing a Herculean load on the hands, and here was a chance to relieve that almost in a cascade of relinquishment.

Leonardo scholars would likely doubt this kind of speculation vociferously. That is as it should be. Yet, I cannot be deterred; to be deterred from one's own vociferousness by the vociferousness of others is not to value the balance of energy and form in the universe or the university. The game can only proceed if both sides are willing to run around and kick the sphere in the direction of the goal. We all gain from this – the consumer gains. I mean no ill will, merely a noble joust.

The professional scholar will also look to parallel and pattern. Where else did Leonardo draw, paint, or discuss bridges? There is at least one, in the *Yarnwinder*, and one also in the *Leda*. We see the bridge canal designs in the notebooks – Atlanticus perhaps – and directional hand gestures across many works. We also see spiral fabrics in many locations. The timing of like patterns is also relevant. The *Yarnwinder* was painted near the time of the *Mona Lisa*. I don't know when the *Leda* was. *Madonna of the Rocks* and *Saint Anne* were prior, to my

understanding. The *Saint John* is later, last it is said, and now do you see what he is indicating to?

Also last, perhaps, is the drawing of a *Woman in a Landscape*. Please, don't anyone try to argue that she is not indicating a direction. Do we really have time for that kind of thing? Time is not infinite. There are pressures and problems we need to address. I see a small water cascade and the outline of a bridge in the *Woman Standing in a Landscape*. She is smiling too.

I would like to add here the final page of the *Six Memos*, the last page Calvino wrote in his life perhaps. The final page of his final testament, it gave me a giant surge of dopamine when I read it. Page 124, it is etched in my mind forever. I should try to see if I can memorize it.

Here it is:

"I have come to the end of this apologia for the novel as a vast net. Someone might object that the more the work tends toward the multiplication of possibilities, the further it departs from that unicum which is the self of the writer, his inner sincerity and discovery of his own truth. But I would answer: Who are we, who is each one of us, if not a combinatoria of experiences, information, books we have read, things imagined? Each life is an encyclopedia, a library, an inventory of objects, a series of styles, and everything can be constantly shuffled and reordered in every way conceivable."

BWV 1079: sonata sopra il sogetto reale. IV. Allegro.

Graphic 12: 11/10/2020



Web log 13

## The Mindful Mona Lisa: Geometry and Writing

By Max Herman  
Thursday, 08/06/2020



Visual modes of contemplation, across all cultures and eras, have always been part of human aesthetic experience. Recent [research](#) suggests that the evolution of the brain has been shaped by cognitive processes that integrate language and visual perception in [aesthetic](#) ways.

Neuroscience aside, it helps to consider verbal and visual imagination together. Leonardo wrote “Painting is poetry which is seen and not heard, and

poetry is a painting which is heard but not seen. These two arts, you may call them both either poetry or painting, have here interchanged the senses by which they penetrate to the intellect.” ([Calvino](#) and [Hofstadter](#) both propose a similar “fabric” of visual and verbal experience rather than two disparate domains.)

Leonardo’s [Salvator Mundi](#), much in the news of late, predates the *Mona Lisa* and has several similarities to it. As an exercise in imaginative association, I will intersperse a few excerpts from Leonardo’s [writings](#) with visual observations about certain details of the painting. Perhaps some of the quotes will resonate with the images for you, and perhaps not; either is completely OK!

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The curls of hair form vortices, with adjacent rotational opposites (similar to those in [Saint John the Baptist](#), the drawing of [Leda](#), and the [Mona Lisa](#)). The embroidery also depicts intertwining spirals. The geometric dual-vortices are interwoven, then grafted, implying that one dual-vortex can map or transform into another (like the [bridge](#) flows into the shawl and the [fingers](#) flow into the sleeve of the *Mona Lisa*).

“Reserve the great matters till the end, and the small matters give at the beginning.”

The embroidery relates to Islamic geometry, rich in visual forms for contemplation, which Leonardo encountered in Venice in 1500. The border of the U shape has echoes in the *Mona Lisa* [neckline](#) embroidery.

“Things that are separate shall be united and acquire such virtue that they will restore to [humanity its] lost memory.”

It is not clear if the X-shaped sash is contiguous or in two bands, and if the latter, which overlaps which. The blue fabric draping over the lower-left section creates one impression and the embroidery of the upper-right section its opposite, presenting an “impossible” or non-Euclidean geometry.

“Let no [one] who is not a Mathematician read the elements of my work.”

The large globe could represent the macrocosm, and the small sphere at the center of the diagonal bands the microcosm, as if the wellbeing of the outer world depends upon that of the inner.

“It is easier to resist at the beginning than at the end.”

Could the small sphere also represent the Lucretian “[swerve](#)” or clinamen at the center of each instance of rotational turbulence? (This is a new hypothesis, and speculative.)

“Every instrument requires to be made by experience.”

The slightly crossed fingers mirror other intersections in the composition. (This idea is also new and speculative.)

“Experience, the interpreter between formative nature and the human race, teaches how that nature acts among mortals.”

The globe’s clarity and openness, as opposed to certainty and control, may express the purity of meditative vision.

“Human subtlety...will never devise an invention more beautiful, more simple, or more direct than does nature, because in her inventions nothing is lacking, and nothing is superfluous.”

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Integrating diverse information -- its weaving or bridging by imaginative analogy -- is fundamental to aesthetic experience. It may even be essential for healthy brain function, and our successful adaptation to the many challenges we face.

Next week: bridges and cities

Essay 13: 11/11/2020

Last night we had a snow storm and I didn't go down to the river. I thought my car might get stuck on the hill down to the park. However I did drive along the river and contemplated its being there, greeting it so to speak. The cardinal pair outside my window looks dignified in the snowy hedge, dignified but humble too. I wonder could it be their first winter? Maybe their first as a pair.

The *Salvator Mundi* is a rather unusual painting I think. There is a strangeness to it. I have looked at it and bought a book about it, but I'm not sure if I have any very strong hypotheses about it. I prefer the *Mona Lisa* generally but that may be a phase I'm going through. There does seem to be some geometry in the *Salvator Mundi* which may relate to the geometry in the *Mona Lisa*. I do wonder about the slightly crossed fingers in blessing and the crossed sashes, the crossed embroidery, and the crystal globes in the left hand and at the center of the sashes. It would be helpful to know if the *Salvator Mundi* or the *Mona Lisa* was painted first, and it seems settled it was the former. This makes sense to me as the latter seems more developed and fully realized, developed in the sense that a theme in music can have development and complexity.

The idea of the bridge being added last and the hands changed in the *Mona Lisa* is relevant to me this morning, as I eat my trail mix and drink my coffee. In my side research the article about the principle of the unfinished in Leonardo's works by Carmen Bambach of the Metropolitan Museum of Art came to my attention. I sent her an email asking about these topics, the bridge and the hand gestures, in hopes of some clarification. The email went simply

to the communications office of the museum of course, not to Professor Bambach whose direct email is not listed on the museum website.

One sees and hears a good deal from time to time about whether it is in human nature to make art, and science I suppose, in some participatory manner, not just for the products yielded but for the exercise as it were. Because we need to do it to breathe – you can call it brain-breath, akin to the heart-beat; its absence is moribund. It is not important whether I solve the *Mona Lisa* and cross it off my list. It's that I try to solve it, and do solve it, but on a recurring basis and not as an exclusionary enterprise. As with crossword puzzles, necessary bulwarks against the cognitive declines of age, one does not simply do one then cease forever.

Is the *Mona Lisa* solution, as I have hypothesized it, if absolutely correct and true, a reduction of the quality of meaning and its circulation or an increase? Therein lies the paradox. I don't believe it is a reduction, and I don't agree with the Freudian fudge-factor "it's either about his mother or homosexuality, but either way you can't know for sure or prove it so go to your analyst and pay more money so he can buy more cigars and brandy." Freud and the Freudians may be correct; they may be incorrect. My belief is that they are incorrect, but I don't care to waste my life convincing them. I shall move along to other groves along.

What is meant by a correct interpretation? Let's take the agreed-upon examples, that all Leonardo scholars say: the painting deals with geology, water, the optics of light, human anatomy, and the conventions of portrait. These are some of the basics – there are more of course. Do these assertions reduce the painting, "solve it," and render its meaning null and void? Some may say yes, that the only source of beauty and truth is mystery and obfuscation.

That is, frankly put, the talk of a swindler. The geologic beauty and themes in the *Mona Lisa* are valid factually and awareness of them does not deprive the work of any of its power or richness, any more than does noticing the feet in the *Saint Anne* and the geology on which they reside.

A truly excellent Ph.D. thesis on the theory, which I should try to jot down here shorthand, would include readings of all the relevant books and articles on the topic – say, five hundred works? I don't know how many you need for a Ph.D. thesis. I've read about twenty or so. Perhaps I should make a goal of fifty and say I'm one-tenth of a professor. Yet as we all know, even a Ph.D. thesis by someone famous can be full of errors and hollow filler. What are the nodes of original content within the fabric of proving that one has read and understood the literature, the five hundred? Maybe it's only two hundred books and articles one has to read. In any case the active nodes and their significance are what matters, not the reading of the literature which is more like a safety net or safety belt and driver's test. It's an insurance policy for someone who hires you to teach twenty-year-olds and write books and articles.

Of course one can easily lapse into the ruts of cynicism and despair. I would commend to you the lines of John Milton however: "enow could I have spared of those who creep and intrude and climb into the fold, and shove aside the worthy bidden guest. What recks it them? What need they? They are sped; their flashy songs upon their scranell pipes they play; the hungry sheep look up, and are not fed, but swoln with wind, and the rank mist they draw, rot inwardly, and foul contagion spread; the wolf with privy paw daily devours apace." Perhaps I have no right to quote Milton and he has no right to be read. I agree there is some validity to

such criticism, but in conversation I would at least plead that those lines have a meaning for me anyway. Perhaps not for others.

Another adage reminds one that “a little knowledge is a dangerous thing; drink deep or else taste not the Pierian spring.” At some point I will have read the noble five hundred.

As to writing, I suppose my reference in “geometry and writing” was to Leonardo’s own writings in his notebooks. There may have also been a suggestion about the brain science of how dopamine pulses inform our use of language from an evolutionary perspective. Yet the geometry of the *Salvator Mundi* was my main reference – though the general idea of viewing Leonardo’s paintings with his writings in mind to me seems natural, proper, and suited to the Renaissance milieu where all arts and genres mixed with vast freedom like the lutes and pipes of the festival feasts. Like the Virginia Reel. In all seriousness though, what Leonardo said about poetry and painting being the same art does matter. People will dispute this, even experts on Leonardo, because his writing is deemed to be a lot of scribbles and not poetry, prose, philosophy, or history. Like the jottings of a harmless flighty professor doodling on a blackboard with crumbs of pie in his beard, a little smelly but charming as an anecdote for the children to study hard. This really relegates the human being Leonardo to something of a slide rule, calculator, or spirograph, a funny robot who makes pretty pictures.

With this I choose perversely to disagree. It is my right to! They can kick me out, yes, the Ph.D. authorizers, from their places of Ph.D. authorization and authorizing. Yet I may, to be sure, found and weave my own, or as one could say, mine own. In fact I shall – now – and have – now. “Academia Pontus Leonardi.” So.

Yet if those who seek evidence, who concern themselves with evidence, of a certain type and flavor I would mention – just to explain my frenzy – that I just learned this week that – oh hell I forgot it. It was something about Leonardo writing. Something very essential. A fact I learned this week which piqued my hopes that the hypothesis is sound, that Leonardo is in fact a true writer with great philosophy in mind. It was a fact, a corroboration, not a speculation. I may recall it sometime.

The item I forgot, which is all the more frustrating because I had warned myself not to forget it or go on too long without attaching a phrase to it, had something to do with people saying that Leonardo was not a philosopher and didn't care about philosophy, that he was more like an enthusiastic craftsperson. That may be. Or, perhaps his philosophy was too anti-establishment to be allowed openly, and it may even be so today. That is of course an issue, particularly when healing is so urgently needed. Why exacerbate the injuries that plague us? Still, sometimes we press on.

Leonardo did view his critics as adversarial, and what is more, superior in power. He was an innovator, and as such, was in the minority. Therefore naturally he would incline toward understatement. His philosophy, if he had one, would be understated. King Francis of France said he thought Leonardo was a very great philosopher. Leonardo also had to carefully please his patrons in a time when most public texts and images had to be approved by the clergy and to deviate was to die. The greatest philosopher would do better in such a climate to be seen as a rube or dolt, scattered in whirling words. What would we expect even the private notebooks to look like, given this assiduous approach to caution?

The sequencing would likely follow the logic of a puzzle, with pieces and then interlocking and then completion. This is for the intention of time delay and the ensuring of process. But what, pray tell, did I learn just this week or rather just observe this week that relates to this? Oh heck.

It had something to do, this vague idea I'm so afraid of losing today, with the import of adding a new metaphor – the bridge – to a painting at the end of it. It connotes a logic of culmination that transforms, a metaphor that metamorphoses kind of like a molecule. At one temperature it folds up like a triangle, but at another temperature or pressure it unfolds into a hexagon. Could my lost insight have been that the process is the object i.e. goal? That an interpretation does not stifle, but opens out? A philosophy that requires our participation and *Esperienza* is not stifling, but rather is more like an invitation to go on a walk.

The thought I had which I thought was an insight is gone, maybe forever. It had something to do with writing, whether Leonardo was a writer and a philosopher too and not just a visual artist or scientist.

What I was trying to remember was a detail I had learned about, a fact from I think Kemp's book, or an article, which did not prove Leonardo was a philosopher but caused me to feel that I was on the right track. It was an intuitional impetus. That is why I wanted to mention it. It wasn't so much the fact, as the feeling I got from it intuitionally which motivated me to want to continue pursuing the hypotheses in this book. The point was to demonstrate what it feels like to find a clue, and why clues are marked by our brains with dopamine. I think that Calvino mentions clues, not as a be-all of course but as something. Maybe koans use clues.

Continuations on a path, like the stone arrows between medicine wheels. Intuition ought perhaps be trusted more than it is presently thought to deserve; if we entertain the idea that Leonardo did have a philosophy, would he present it plainly or culminatively, and if the latter, would a bridge have made sense pictorially and thematically, rhetorically, or cartographically? Perhaps. Intuition makes sense during the poetic or imaginative aspects of cognition; it is what exists in the place where simple logic has nothing and is hollow.

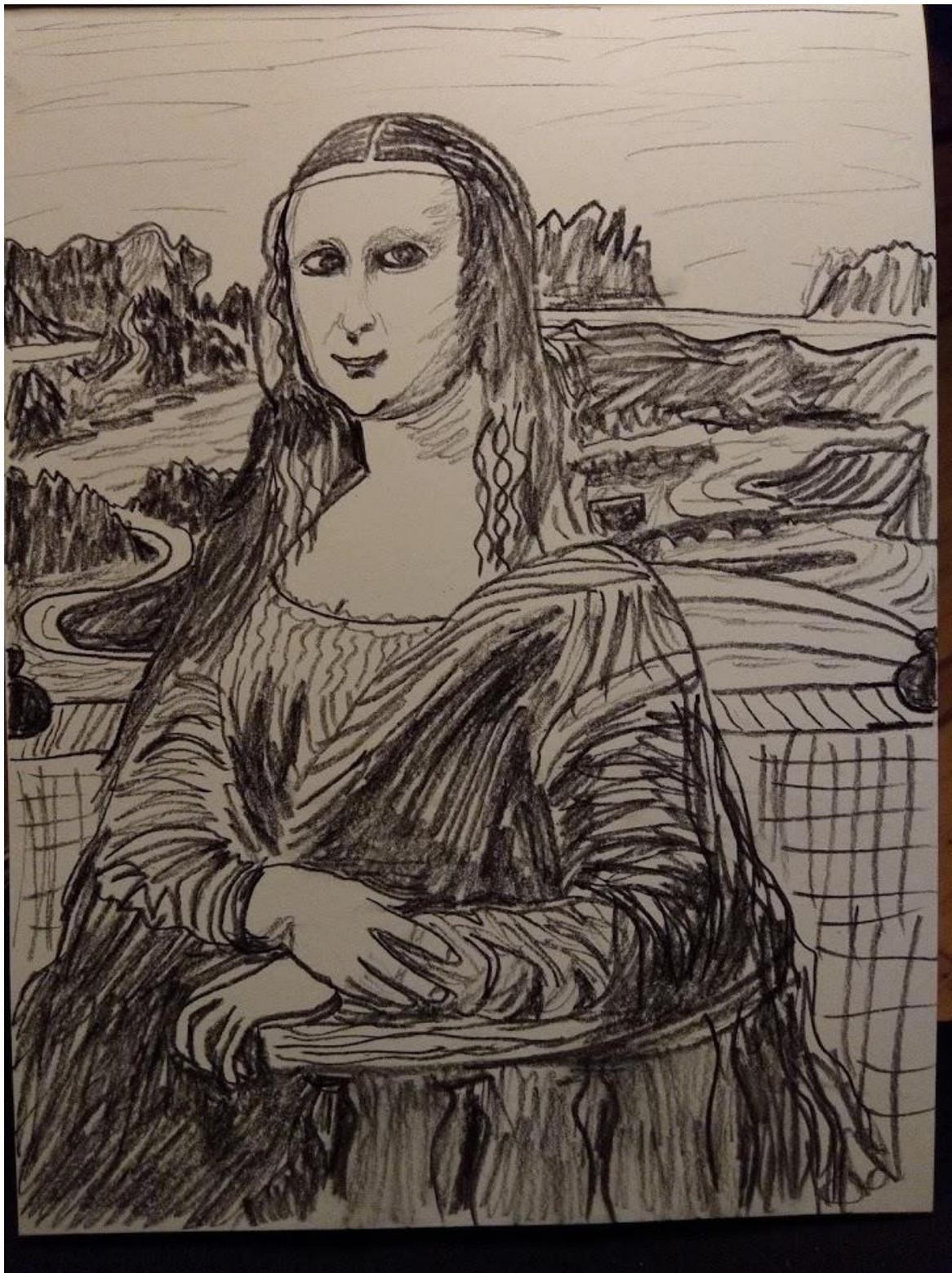
The idea that Leonardo had no philosophy, was no philosopher, might bear more of the burden of proof. I don't feel that the true philosophy I hypothesize Leonardo had is anti-establishment but rather is reformist and hence overall constructive. Was it and is it even now perhaps seen as too fragmenting? Perhaps. Yet, when does fragmenting or flow actually become the core of structure? If this is a change-point that Leonardo cared to illustrate we might wish to pay attention. For example, "two weaknesses leaning against each other make a strength." Is this just a carpenter's instruction for how to make a window frame, or is it a metaphor? Leonardo rotated, iterated, and mirrored all things in his perception – ideas, words, images, and facts. He had a rotational intellect which nevertheless appreciated turbulence and the flow of time. He was an experimentalist which requires that one appreciates uncertainty.

Leonardo's statement that poetry and painting are the same art is kind of what I meant by the proving or corroborative fact I forgot. It wasn't it, but it was similar to this.

Thank the heavens I remembered it and shall not tarry to write it down. It was, that Martin Kemp wrote in his book *Mona Lisa* that someone should attempt the very large but useful task of evaluating the meaning of poetry in all the works and legacies of Leonardo. I

agree and would like to do that. Someone should do it, that is, but no one has. That is what I mean.

Graphic 13: 11/11/2020





How are cities and bridges similar?

A city is a bit like a circle, and a bridge a line. One is defined more by rest and residence, the other by travel. Both often exist in tandem: where people build walls, they also often build bridges. They are both infrastructural. A city is more like a node and a bridge a link. There are physical similarities in the construction of each. Bridges connote roads, and cities buildings. Cities are like cells or organs, and bridges are like vessels or nerves.

In the *Mona Lisa*, the bridge represents to me our transit from the pre-technological era to today, and the garment our lived technological environment.

To really understand bridges and cities, we cannot think of them as built of stone, glass, and steel only. They are mostly made of people, the people who use them and are affected by their use. They are constituted quite literally by the bodies of their people. These bodies contain brains, and these brains contain minds – every single one, of any age or origin, all the time.

A brain is somewhat like a city, in that it has a boundary with input/output, plus links or connections to other brains by way of sensory bridges. A brain is made up of a vast number of [connections](#), between individual neurons, structures, muscles and organs, sense perception, and so on in immense diversity. Yet the number of connections cannot be infinite or else the brain could not find equilibrium, rest, or consistency of any sort.

In meditation we slow down the inputs and outputs of the brain for a while. We are awake – meditation is not the same as sleep – but the activity is low, a resting alertness. Activating our internal [Default Mode Network](#) allows the brain to integrate and function as a whole, to balance and become subtle, for complexity to find clarity and form. It is the foundational process of *temet nosce* and thus ultimately of all art and science, all that connects us.

The human element of our world's cities and bridges can be [invisible](#) at times but it is the most important variable in our past, present, and future.

How is each of us a city? How is each of us a bridge?

Leonardo wrote: “Human subtlety...will never devise an invention more beautiful, more simple or more direct than does nature, because in her inventions nothing is lacking, and nothing is superfluous.”

Next week: water and meditation

Essay 14: 11/12/2020

I'm forgetting a lot lately. Maybe that's OK, a side effect of proliferation. Yet I did want to mention that I think Leonardo was a soldier of sorts. Remember that he wasn't Leonardo while he was living his life. Every day had a fork in the road or many forks. He had to improvise and made many choices. It seemed to me that the *Mona Lisa* may have been in great part a work of serendipitous improvisation, a tremendous outcropping of the unexpected out of a time of great pressure. This is just my gut hunch based on adding the bridge at the last minute, and how the right hand was changed (even though Leonardo was left-handed, which I am not).

The song associated with chapter IV of *Gödel, Escher, Bach* is the "Little Harmonic Labyrinth," a very charming song which I am listening to now as I often do while writing. It seems chiasmic but I cannot be certain. Is 1-1-1-1 a chiasmus? It is a ring in a way, and perhaps if you graph it in a 2x2 matrix it's also an X. It would be an antimetabole perhaps like 1-2-2-1, since the first and last are identical and the second and third are identical. It also occurred to me at breakfast twenty minutes ago that the numeral 2 may depict a loop so that if you draw a lot of loops in a row you get a spiral but also a lot of 2's. This is true of course only if you draw the loop in the 2.

I forgot twice to note that this is now the end of the book, the last half, the ending half. This feels like a great omission and error, if not a fatal one. Has this writing project gone entirely off its axis and out of orbit into the desolate eternity of empty space? There is something in the mind which resembles such. Dissipation it was once called, and now the word dilution might be more apt. Dissolution was another word for the dissolute, in the sense of sex,

song, and drink. Disappearance or disembodiment are too-lengthy words for this feeling of turning into a mist. Evaporating is a good word for it, taking out the drastic medieval punishment factor which we have in our day somewhat suspended for the middle classes.

It's OK if the turn is a tad more wrenching than one could have imagined it. A simple meditation on an image on a journey is not too far afield as yet. I did keep my thread alive of walking by the river's edge last night, very dark and edged with snow. The ducks were still there by the flat sand section by the cottonwoods. The snow and dark are very different from the hot sun and students in shorts throwing flying discs. I was sent a lovely poem recently, Stevens' "A Snow Man," which begins "One must have a mind of winter...." I think Leonardo had a mind of winter, though of a different sort than I. Without the bridge addition and the hand modification the work was and would still be a very different work. One poet called it something "to the uttermost," I can't recall the rest, something screaming into the brain, "pain wrought to its uttermost" – it is the tainted Lapis Lazuli of Yeats. "Tragedy wrought to its uttermost." We don't think of Leonardo as operating on a guerilla basis, in occupied territory and of an alien tribe, but he was, not unlike we all are.

To unite East, West, and Indigenous is no small matter. It's easy to take a living thing and kill it to make it conform. To find balance and harmony while in the fullest flower of life is a very different story. We should not let this complexity cause us worry however, because to worry is to mar. The *Mona Lisa* is telling us the opposite.

On August 21 of this year I wrote to myself, on a page with a list of page citations from *Only Connect*, the following: "Leonardo expected 'me' as a viewer: knowing more science &c.,

but confused ~art; knowing he is famous/great; knowing the notebooks; and NOT knowing what the painting is 'about.'" The truth of this can be seen in light of my own wish right now for these words to appear (and images no less) before the eyes attached to the brain of some other human, in a place and time different from my desk and later than 9:52 AM Central, who knows something about art and science, has access to the same works of Leonardo that I do, and doesn't know what the *Mona Lisa* means. This human could be an agent in two weeks, or someone clawing through rubble after a flood in 2071 that wipes out a university library (long abandoned after disaster XYZ). It could also be a human in a nation where voting is not allowed, or not often allowed, or not very efficacious when allowed. Just because you are not here yet doesn't mean I don't see you! I may not see everything but there are some things that I can see.

I used to think of this in terms of Shakespeare: if conversation and bi-directional communication are so important, so essential to participation, how can Shakespeare meet this standard? Well, it's not super easy but neither is every table at which words are breathed out very communicative. Removed in time, can there still be an exchange? Perhaps, if I can imagine the questions that you may have and answer them, but most importantly, whether you sense that I can hear your questions and reply here and there. Call it a form of ancestor worship, which to me is somewhat like replaying in my thoughts conversations I had with my maternal grandmother, called in the language of her forbears *mormor*.

It would be perhaps helpful for my own recollection to recap what items I will try to wrap up before this ends, and to make sure I haven't left anything too essential out. I think I've mentioned the medical imperative, Hippocrates, Calvino, Hofstadter, James Austin, and the

like; stone circles, Kemp, Starnazzi, Zwijnenberg; proprioception, interoception, network neuroscience, and Olaf Sporns; Georges Perec and *La vie mode d'emploi*, Ovid's *Metamorphoses* (didn't mention Kafka's "Metamorphosis" or the "Knight of the Bucket"); and so on. I've included the web logs of course, and the drawings, and can go back at the end to put in the index and bibliography. I don't think I will do footnotes because they can be very distracting.

It's also not a priority for me aesthetically to pursue all the links in the web logs. The logs are still there on the internet so people can link to the links in real life. Have I included all of the main basic elements yet, the A and the B, so as now to be able to approach the B' and the A'? Perhaps. I suppose the A is the *Mona Lisa*, and the B is the mindfulness; leaving now the "other take" on mindfulness and the other take on the *Mona Lisa* to somehow forge a return to the starting point for the sake of consistency – to allow meaningful iteration which is not, as Calvino put it, petrification, or as Leonardo might have said, putrification. This could be a case of the gulag compared to the gallows, and war by spear not aerial bombs. Yet the horror is not so different – the horror is not different.

What else have I forgotten? Perhaps just to say I mean this all, this recapitulation and coda of web strings in a fugue-like meandering, as nothing more than a way to possibly spark a beginning. I now understand why Shelley called each expression of imagination "a fading coal." It's because parties weren't meant to last. What hell would be a party that lasted! Good gracious. The whole point is that they end too soon. Shakespeare clarified this very coolly in "like as the waves." I memorized that in undergraduate and repeated it to myself endlessly on my walks in winter when the FM radio songs of the eighties and seventies were repeating so

profusely in my mind like a tornado of fallen leaves. Even today they were falling in my mind at morning. In such cases these days I recite stanza [forty-seven\*] of “Adonais.”

The web log about cities and bridges is OK; for some reason I detested it a little bit for being too crude and not enough Henry James -like perhaps. Yet reading it today I like the simplicity just fine. Comparison is transitive, goes in multiple directions, and can return, like transits can. Transits in networks to me happen in time, the same as if you took a bus around town then back home. Commutativity is another principle, which means “A to B, then from B back to A.” This might be incorrect use of the terms on my part, but I just mean that returning to where you started is not really possible since time has passed; or as Caulfield said you are different and the museum is different. This would be something like the chain of 2’s written out with the loops, and I sometimes wonder if Leonardo had anything of this sort in his imagination when he drew the schematic of Florence from this chapter’s blog. That drawing was one of the first that convinced me I might be on the right track – notice the inverted arches, the vertical sine wave or wave, and grid/wave juxtaposition of city and water. It makes such a difference to know as Leonardo did, and expressed with more intensity than anything else, that flowing rivers obliterate cities! The passages where he describes the annihilation of everything by flowing water are by far his most exhortative. How can he not be telling us about meditation?

There are small drawings of arches and sine waves (so I call them) in the Codex Leicester too, which I was reading last night in the Kemp edition which is just very large reproductions of the pages with no commentary – volume I of IV. You can see all these tiny sketches of lines of waves and loops. So seeing the schematic of Florence affected me a lot. The idea that no one

has done a fully thorough tour of poetry in Leonardo is also a “new finish” that I just learned these last ten days or so, and that the bridge and hand gesture were the final keystone of the painting. (Yes, I know I can’t prove it yet – you don’t have to keep repeating that, thou skeptics.)

Still I know there is much that I have left out, haven’t done at all, or haven’t done well enough. I might not ever get back. Why this is I cannot completely express. One missing space on the map however is indigenous philosophy, which I have not studied enough to have a right to comment on. I did mention that I learned about the wheel at the meditation conference. But to tell you the truth that is the major missing element that I don’t really have the knowledge or experience to cover in this book. It is a future plan however, a longer-term vision for which I hope to be held to account and will seek to navigate with success. I don’t know how to put a form to this except perhaps to reference the opening note to Professor Cajete’s book *Look to the Mountain* which mentions racing, which is of course coursing:

“A wise elder among my people – the Tewa Pueblo Indians – frequently used the phrase ‘Pin pe obi,’ ‘look to the mountaintop.’ I first heard it when I was seven years old, as I was practicing for the first time to participate in relay races we run in Pueblo country to give strength to the sun father as he journeys across the sky.

“I was at one end of the earth track which ran east to west, like the path of the sun. The old man, who was blind, called me to him and said: ‘Young one, as you run, look to the mountain top,’ and he pointed to Tsikomo, the Western sacred mountain of the Tewas. ‘Keep your gaze fixed on that mountain, and you will feel the miles melt beneath your feet. Do this, and in time you will feel as if you can leap over bushes, trees, and even the river.”

-- Alfonso Ortiz, *San Juan Pueblo*, 1972

Graphic 14: 11/12/2020



Web log 15

## The Mindful Mona Lisa: Transitive Painting

By Max Herman  
Saturday, 08/22/2020



In his 1992 book *Only Connect: Art and the Spectator in Renaissance Painting*, John Shearman explores in depth "the artist's responses to the assumed presence of the spectator.... from awareness and acknowledgement, to the spectator's entering into the artist's subject and completing its plot, and finally... the artist assuming... the complicity of the spectator in the very functioning of the work of art." (OC, p. 17)

As this mode of painting matured during the Italian Renaissance, "the relationship between work of art and spectator is now fully transitive. The Oxford English Dictionary defines 'transitive' as 'taking a direct object to complete the sense, passing over to or affecting something else, operating beyond itself'" (OC, p. 33).

However, in the *Mona Lisa* Shearman sees only an early and partial use of transitive painting: "The Mona Lisa notoriously presents problems of interpretation... was Leonardo trying to describe the inner qualities... of an individual? If that was his intention, I do not think he can be said to have achieved it" (OC pp. 121-122). The ML is transitive by engaging the viewer with its eye contact and smile, but remains limited to "generalized ambiguities" (OC, p. 125) which only later artists "taking up the challenge" (OC, p. 123) would particularize.

However, what if Leonardo's goal of [universality](#) (as proposed by Martin Kemp) superseded particularization by design in order to pose an even more profound and intentional challenge to the emerging transitive aesthetic?

Perhaps the "generalized ambiguities" are specifically designed, like a Zen koan, to require the viewer to look deeper, indeed to study all of the arts and sciences in Leonardo's notebooks. Our own work to understand these becomes part of the subject of the painting. Shearman calls this gradual timeline in transitive artworks the "slow fuse" (OC, p. 258).

In this new [hypothesis](#) the *Mona Lisa* may be an allegorical portrait of Experience personified as a principle uniting art, science, society, and humanity. Since Experience is universal, we don't see a particular example of it portrayed but rather are led to encounter our own. The viewer and not the painting is the locus of the "missing" particularization. Perhaps Leonardo foresaw the deep historical future of transitive painting as well as the interconnective literature dreamt of by [Calvino](#), and a time like our own in which the free discussion of art and science would be both more permissible and urgently needed.

Did Leonardo intend to create a portrait of Experience? He does personify it as "mistress" (i.e. the feminine of "master") numerous times in his notebooks:

- "My subjects are to be dealt with by experience rather than by words; and [experience] has been the mistress of those who wrote well. And so, as mistress, I will cite her in all cases." ([Richter](#), 10).
- "My works are the issue of pure and simple experience, who is the one true mistress." (R, 12)
- "Il Moro as representing Good Fortune" i.e. referencing allegorical portraiture (R, 672)
- "Science is the observation of things possible, whether present or past; prescience is the knowledge of things which may come to pass, though but slowly." (R, 1148)
- "Experience, the interpreter between formative nature and the human race, teaches how that nature acts among mortals; and being constrained by necessity cannot act otherwise than as reason, which is its helm, requires her to act." (R, 1149)
- "Experience never errs; it is only your judgments that err by promising themselves effects such as are not caused by your experiments.... Men are unjust in complaining of innocent Experience, constantly accusing her of error and false evidence." (R, 1153)

As promised in last week's [blog](#), how can all this relate to water and meditation?

Leonardo wrote evocatively “The water you touch in a river is the last of that which has passed, and the first of that which is coming. Thus it is with time present.” (R, 1174)

This can be compared aesthetically to Hokusai's [wave](#), or to the Buddhist saying “[Enlightenment](#) is like the moon reflected on the water.”

Or this from the [Met](#): “Zen teaches that enlightenment is achieved through the profound realization that one is already an enlightened being,” which “is the result of one's own efforts. Deities and scriptures can offer only limited assistance.”

Perhaps Leonardo's image of Experience is transformative for us today just as is Buddha's vision of Enlightenment: by showing that each of us already has it.

Next week: Experience and Enlightenment

Essay 15: 11/13/2020

A couple of things for me to remember from the last essay yesterday are the items from Shearman in my notes – I have opened up my notebook, the rust-colored one, to the appropriate page. I spoke too soon – the Shearman page notations – 33, 57-59, 124, 140, 148, and 121-125 (marked with three stars) – are in my ring-bound notebook not the rust-colored one. The former is open now. The web log selection seems to have covered the Shearman topics reasonably. The idea of transitive painting is relevant to the *Mona Lisa* I think, and I greatly appreciated the kind recommendation of the Shearman book to me by an author about Leonardo.

Again last night the river park was very cold and snowy, and of course dark. This book has spanned the transition from a later dusk to an earlier dusk. I'm glad of that. It's not just in the typical sense either. The cold and snowfall created interesting little rafts of frozen snow racing very quickly downstream toward the Gulf of Mexico. I picked one out of the current and it was very light and thin like a wafer, not like ice at all. It kind of made my mouth water like a sugar cookie would have, and this was an enjoyable sensation despite not being factually true. Or rather the equivalency was not literally exact. There were no ducks or geese at the park or at the river's edge.

Water is a good topic for meditation it would seem. It takes so many different forms, but also keeps a wonderful identity all its own. There is probably good research out there about the role of water in meditation. One influence on me during this pandemic was the Public Broadcasting System program about water called "The Molecule that Made Us." Isn't

that an interesting twist? Water created us. Now, water doesn't have intelligence in the typical sense of a brain, and so forth, so one might think that it cannot be said to have created anything. However, if we define creation as something that only a human can do we may be narrowing out some worthwhile equivalencies. Another example of this is the phenomenon of chimeras, or "X-shaped creatures," in the emergence of RNA and DNA at the start of life on the planet Earth.

One theory called the "RNA world" theory says that first there was a lot of bits and pieces of molecules, then RNA appeared, then RNA led to the creation of DNA. However logical this may seem, it may not be true, because RNA and DNA are rather stable. It's not so easy for RNA to change drastically into something different like DNA. A new theory called "systems chemistry" (and full disclosure, I am not a chemist) argues that what actually emerged from the soup of fragments were a wide range of RNA/DNA "chimeras," molecules that were part RNA and part DNA. The advantage these chimeras had was that they were very prolific and unstable, so they could create a lot of new molecules. This was much more efficient at producing stable results; in other words, you had to have a lot of instability before stability could be created. I think this is a fascinating example from science that may relate to flowing phenomena like water. It's also relevant that all of the protein molecules that were shifting and folding into various shapes during these early times of chemical imagination were highly dependent on water. It's not like the water was off to the side doing nothing! The water was making it all happen.

Perhaps I've written enough about water. Another recent influence on my thinking was that I saw a production of Ovid's *Metamorphoses* in which the stage was a square pool of

water. It was fun to see the characters splashing around in water, and the players splashed water onto the audience. Of course the problems of climate change have primarily to do with water and the movement of water.

Meditation as they say is an experiential rather than a theoretical pursuit. This has caused some confusion I think in the adoption of meditation. How can you teach people to meditate if their concept of learning is based on analysis and acquisition of fact? We don't want to banish facts or analysis from people's brains, yet we do want to promote meditation. Could it be that the specializations of East and West regarding the human intellect are actually mirror deficiencies in some respects? If yes then indigenous intellect might be a tremendous resource which both Eastern and Western methods need to respect more if they wish to develop and progress.

In regards to the particularization of the viewer's role that Shearman proposes, and finds somewhat crude in the *Mona Lisa*, we can take valuable insights about how we understand particularization. There are many flavors of it. If our patterns of particularization are too narrow, like ruts, we actually face a terrible risk of generalized homogeneity and abstraction. This is a little paradoxical, perhaps, but makes complete sense if we are feeling our groundedness in the tangible felt passage of time. The loss of the bodily direct experience of groundedness, sometimes called "embodied wisdom" or "enactive cognition" is in this sense a form of blindness. Oedipus' belief in a story of his own making rather than respect for the universe is one way that the Western Tradition tried to illustrate sight and blindness.

Much is said in the contemplative heritage of humanity about the perception of the universal in the particular. This is no panacea; far from it. I would say it is also an experiential reality, or what Shakespeare called “no thing.” (There must be some fairly clear matches to be made between Shakespeare and “no mind.” Calvino only mentions Buddhism once that I can recall in *Six Memos*, but it is in reference to Pythagoras as an influence on either Ovid or Lucretius – I think Ovid, whose poem was about Pythagoras, Lucretius’ poem being about Epicurus if I can recall what Calvino had to say about it.)

No one is in charge of everything, and that includes me. I just do my own small activities which may be of no import in the larger sense. It’s really not up to me to determine whether they are or are not; that is up to the systems chemistry of the day I suppose, the rampant play of chimeras in the tidepools and rain forests we call home. One never knows. Still, it would make sense to wonder if teaching young people about meditation when we teach them about Shakespeare, the *Mona Lisa*, Pythagoras, the Buddha, and the coyote legend could increase test scores. Many will say that test scores are beside the point. However, we could re-calibrate and call these scores the numbers that students provide as to the magnitude of intellectual flourishing they get from a certain educational process we provide as providers of education. The course is being tested and scored, just as is the student. It’s a form of listening to the waters rather than just trying to dam everything and pipe it all over the place. No self-respecting engineer, much less one tasked to engineer a sustainable planet, would be so childish as to think that their blueprint is omnipotent. That’s not what engineering means.

David Bohm is a writer I learned about at the meditation conference. He wrote about information or communication as a flowing of knowledge amongst a group, rather than just a

list of what everyone in the group knows (like quantities in a bank account). It's the moving-around of the knowledge and intelligence that constitutes the intelligence, and most importantly, where learning and new knowledge can occur. He based this on the idea of "dialogue" as "flowing-through" rather than "exchange between two." It's common sense but like Leonardo's idea of the *sensus communis*, maybe we have lost it or a lot of it. Is it more adaptive not to have this sense that integrates information and sees its dynamic qualities? I would propose not. It can be a hypothesis. Being able to learn, change, and imagine without massive inefficiency could be an adaptive skill for people to have in the rest of this century, the twenty-first.

Politics can sometimes solve problems, but it can also cause problems. I don't have a solution to all injustice. However, I do believe there are positive concrete ways to reduce injustice and build on justice. There are many definitions of justice and I don't want to be a hyperpartisan about one or the other. I will propose that if people are better able to imagine, meditate, and communicate, there is a greater likelihood of win-win solutions. Calmness and simple wellbeing can have a tremendous opportunity-benefit in complex systems, like the one additional breath of goodwill taken that carries the realization of a word of reconciliation.

We often talk of peace, but do we always give up our hopes of revenge? The Buddha said that forgiveness is not the acceptance of wrong as right, but the relinquishment of the need for revenge. Revenge can be too addictive. And does it really work that well? Many species including primates are able to forgive each other and reconcile even when unjust harmful actions have been committed. I would argue that genuine remorse is also possible.

We have to be grounded and realistic for sure, but setting aside revenge can make a person resilient and better equipped for a long term victory, perhaps even a species.

These are not terribly difficult experiments to perform, and prohibitive risks need not be taken to do so. One can simply do experiments about teaching people to meditate – not to be expert meditators necessarily, with say the top one percent of meditation skills, but just able to do so like riding a bike – and also teaching them about the *Mona Lisa* at the same time or during the same class. One does not have to change or control all meditation, all meditation education, all painting education, or all painting. It can just be a one-day chimera of the two.

Water can be a great guide and resource in learning to meditate, but the breath is kind of the ultimate guide. Breathing, of course, is air, and when the earliest language-users tried to think of “what do we call the living thing that is inside a person who is alive but not in a corpse?” the main choice was the breath. We say “took their last breath” and not “took their last drink of water.” Certainly blood is life, and the spilling of blood is death. Yet it was said more in primordial times “the breath has left their body” than it was said “the blood has left their body.” Yes blood is life, flesh and blood are life. Yet a special meaning has always been attached to the breath, perhaps because of its instantaneous nature. It’s more instantaneous than blood, and Leonardo understood this distinction between the dynamics of water and the dynamics of air (though he also knew they followed the same shapes and rules or many of them). I think he may have said that air was like water, but faster.

One can easily get a little too swept up in the images and geometry of water. It’s a good subject matter for meditation, art, and science, but we can’t let it disconnect us from our

breath. Eliot mentioned “death by water” in the Waste Land and it’s a concept we shouldn’t totally ignore. I am far from an expert meditator but when I meditate I practice breath awareness, and it does seem to work. The term “yoga” means to “yoke” or connect, specifically, the body to the breath. This is actually a great image about how to find a “water” form of being from a combination of air and earth (or matter).

Water should also just be simply experienced – drink it, look at it, walk by it, swim in it, interact with it in as many ways you can. My home state is called “the land of ten thousand lakes” so maybe that is part of my mentality, this fabric or tapestry of fresh water woven into the landscape, a very benign environment of water that is not just teeming with life and easy to travel on but potable and close to shore. Clearly I have led a sheltered life, and this is a form of debt which I may be able to in part repay but likely not in full.

Breathing and meditation also should be experienced to be understood – the same applies to scientific experiments and the creation of art and writing. Make a point of using up a quantity of paint, where the only assignment is to use up an amount of paint and paper. I had to do that with watercolor, i.e., stop thinking at all about what or how to paint and just deposit the pigment onto the white surface using the brush. The same probably applies to words. It helps a lot to read poems out loud, but you may need to do this in private because people tend to think it’s for lunatics only, moon-perceivers, users of koans. Even the most scientific and healthful activities can be hated by some or discouraged by capital punishment.

During the Anthropocene Era, we may not see the cessation of all war. There may be continued spending on war. How much healing will there be, how much of a valuation of

wellbeing of people and the planet? That is also a quantity. What will the ratio of war to healing be? I don't know, but it seems like there could be a range along a continuum. Maybe healing could really do great, and by something like "reciprocal inhibition" war could be disincentivized? Systems are complex to be sure but one does hear historians say from time to time these days that the Great Depression of the thirties did not need to happen and could have been avoided. Maybe this is not factual, but the question is not irrelevant: how much injustice, suffering, poverty, and horror can be avoided in the next ten to twenty years? It doesn't seem correct to say that the amount is pre-determined.

Climate change and the geopolitics of the next eighty years will certainly cause a massive amount of suffering and damage, but if people are able to meditate and communicate I think there are meaningful chances to accomplish massively less than the maximum worst case scenario.

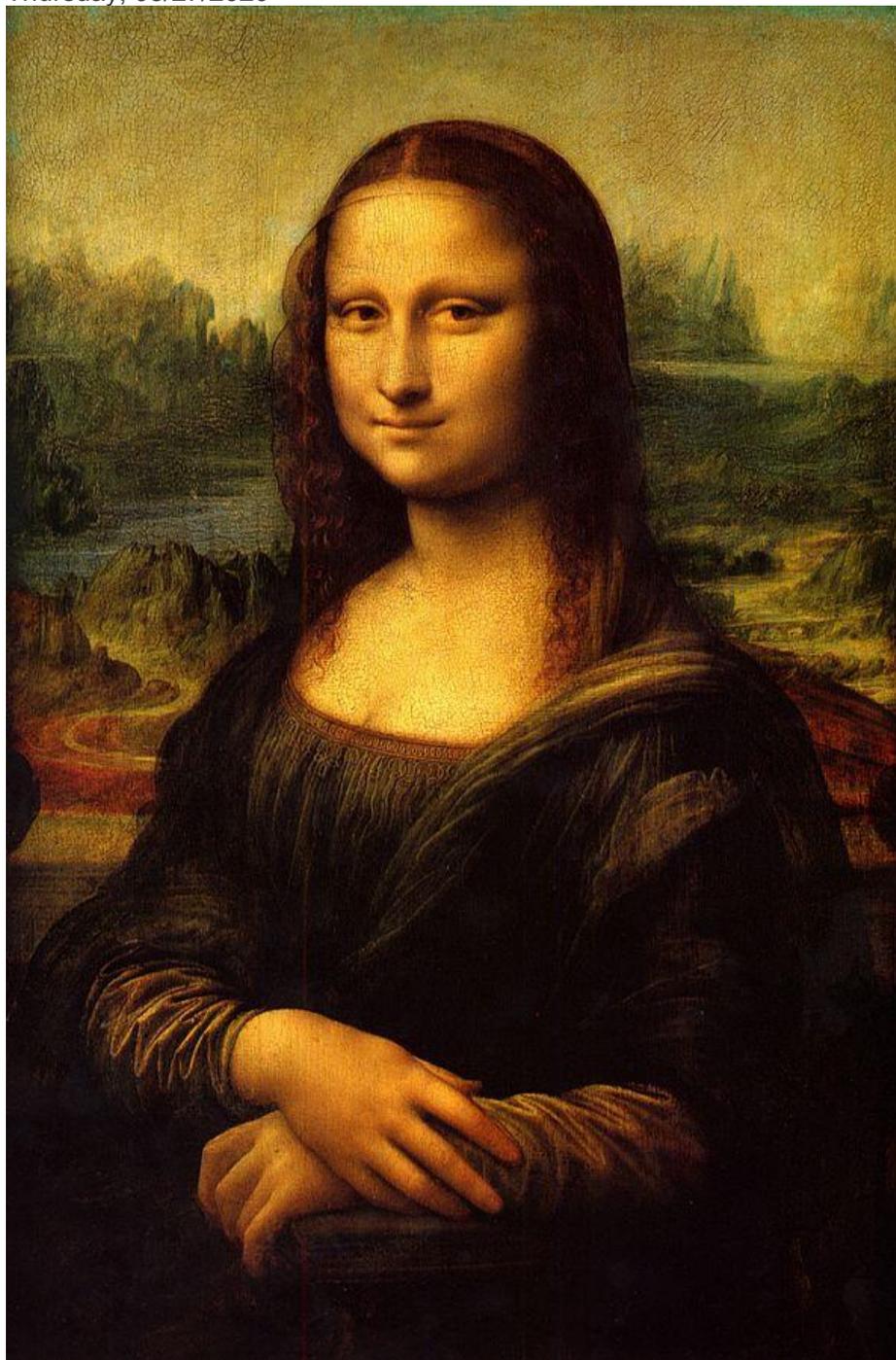
Graphic 15: 11/13/2020



Web log 16

## The Mindful Mona Lisa: Experience and Enlightenment

By Max Herman  
Thursday, 08/27/2020



Every eighth blog in this series, I like to include the full painting of the Mona Lisa.

This is partly to confirm how my perception of it is evolving; and partly so the reader can do the same.

It also seems proper to see if my hypotheses about the painting are stunting and eroding its aesthetic power, or on the contrary sustaining and enriching it. So far the latter has been true. I see the painting more sharply now, with more movement, more specificity, and certainly much greater unity of effect and intent.

Can a mindfulness-oriented approach to the painting endure over time? In this experiment as well, I find that a meditative state – alert but resting – helps bring out the intensity, scope, and agility of the work, even its *sturm und drang*. Meditation has this paradoxical effect, like the focused power of flowing [vortices](#), and often allows us to see the familiar with [fresh](#) eyes.

This blog series is based on a few simple hypotheses:

1. We are meant to meditatively engage with the sitter, who is simultaneously meditatively engaging with us. The sitter is our peer, neither superior nor inferior: our intersubjective mirror.
2. The painting is an allegorical portrait of Experience -- Leonardo's core value -- with which he integrates art and science, truth and beauty, affirming humanity's potential and our hopes.
3. Because the Experience we see is in the present, we cannot label it easily and therefore look further to the background for context. There we see the natural forces of Leonardo's science: rivers, geology, mountains, and sky, the primordial macrocosm.
4. The bridge is a subtle but central structure in the work. It returns the viewer from the macrocosm to the microcosm. It blends into the shawl and garment which together represent technology (i.e., human artifice) and its products, which are both subject to the flow of necessity through [time](#) and clearly distinguished from Experience as such. They clothe and support her but she is eternally their superior and creator, related but apart, and the right hand points us to this.
5. Finally we return to the sitter, our peer, and the entire cycle resets like a fugue or octave, or whorls in the water of a river at its banks. Diverse elements flow, blend, interweave, and metamorphose, just as Experience does as it engages Nature with science and art, interfusing and unifying the composition on all levels.

In these hypotheses, Experience is consistent with the Buddhist concept of [Enlightenment](#). Both principles map the inner and outer worlds blending in dynamic forms while never becoming identical. Their connections are created ever-again, ineffable and irreducible. Indigenous traditions have concepts that compare very closely as well, whereby through a combination of skill and humility we can actively experience reality, learn, and evolve through time.

The smile, like that in Buddhist and archaic Greek sculpture or the indigenous trickster figure, is both confident in and expressive of its presence in the now of being – of Enlightenment, and of Experience.

We can be too.

Next week: Hippocratic Medicine

Essay 16: 11/14/2020

The Enlightenment aspect of Experience is relevant, and the two ideas are worth comparing. Enlightenment is also of course both a Buddhist or Eastern concept and a Western concept as from the Age of Reason (now disproportionately damned by most philosophers, who built a straw person of Reason as Logic which it never was meant to equal). Enlightenment implied both illumination and reduction, clarity and simplicity. It's a natural image if we think of our minds as forests or thickets of connected things.

Experience in the present moment, attuned to cause and effect, inner and outer, input and output, is very much what is meant by the state of Enlightenment in Buddhism (which is an active state we "already have" but have forgotten, not a factual datum or completed task). People may say "oh stop fudging everything together you are ruining our heritage." To this I would reply, "your lack of perspective is disappointing both to me and to Leonardo himself, and ultimately to you yourself though you may not realize it at the moment."

Today things have been scrambled somewhat because I went to the river before writing rather than after. Yesterday I went in the evening before dark and enjoyed the beautiful natural light of dusk, the pinks and orange tones reflecting in the river's waves. There were flights of mallards as well as swimming lines of them. The water level was high from the snows and even higher today. I will go to a different tributary of the river this dusk for variety. Today I saw a marvelous piece of driftwood at the river which I really want to show someone. It was warmer and you could smell the soil and decomposing leaves amid the snow.

I drew my drawing at the river last night as the sun set and the waves were splashing on my boots.

Shearman's ideas deserve more discussion which I will try to provide. The page numbers of *Only Connect*, which I cited earlier, may suffice, but it's not an easy book to find. I will add some passages when I get to the editing phase of these essays. Suffice it to say that Shearman's idea of "transitive painting" is relevant to what I'm proposing about the *Mona Lisa* and I'm very glad that my research collaborators, working together or apart, knew of the Shearman and were kind enough to tell me about it.

The election here seems to be settling down which is also something to be somewhat glad of. Not that all the problems have gone away, but it is hopeful to think of new approaches which could be brighter. One forgets to hope sometimes yet it is a virtue.

The political meaning of Enlightenment and *Esperienza*, when viewed together, is not in my opinion null. Some have called me in my graduate school days, forging a new literary theory based on connection, equality, and the aesthetic present, an old-fashioned moralist because I felt it was false to say "all things are constructions only." They felt I was a stickler and a stick in the mud. I took it as something of a badge of honor or as Blake said "a kingly crown." Obviously not a real crown, or a king's crown, it was merely monarch-like. Yet if we wish at all to maintain something like the political principles of the Enlightenment era we must understand Reason, and what's more, use it and fulfill it, because just to badmouth what is self-evident will take people to nowhere. I can fight that fight all day but it's pointless.

The Enlightenment of Kant and of the Buddha are not disparate; on the contrary, they have many profound equivalencies. One could do an applied category theoretical map of them to show this, if one had the time and the inclination. That is more like a mop-up operation though and something more direct might be needed sooner as in right this minute.

The *Mona Lisa* can be well understood as a bridge between the era of European contemplation – the Middle Ages – and the era of European analysis – the Modern Age. These are, in a sense, the ages of Enlightenment and Experience, Enlightenment and Enlightenment, or Experience and Experience. It's a time of torsion and fusion, the Renaissance. Leonardo wanted to bring them into alignment, religion and science, not pit one against the other. He also knew that his time was a bridge time.

I had a funny encounter last year before the pandemic, when someone mentioned there is a theory that the Mona Lisa is pregnant. I asked the person "with what?" and he said "what?" and I said "the future!" To a person like me that kind of thing is funny but I repeat myself. I also think it is very funny to say while eating bread and butter "this is my bread and butter." There are a lot of things that I think are funny at the time but are just plain rude, like flatulence. Yet the rebirth of antiquity into the modern moment by way of an Enlightenment-Experience vortex or golden braid is not just rudeness to propose. If it's the plain truth, is it not OK to at least hint at it assuming the coast is clear? Or put another way, can you really allow yourself the indulgence of not even hinting at the truth when the coast is clear?

I forget my body too much however and that is a valid failing to call out. Each day of these writings – the essays, not the blogs, the latter preceding all of the former – I have

meditated at least twice, one time for five minutes at least and another time for at least twenty and usually thirty. I've walked by the river every day, the Mississippi, and made a copy of the *Mona Lisa* by hand. These are only the most minimal appearances of the body but they are a degree of presence I thought I needed during the first phase of essay-writing. The routine is helping me quite a bit in getting through the first draft.

Here is the poem I wrote I forget when, perhaps 2003 or 2004?

#### A Box

Prison, gate, or shelter, house or brain,  
 Keeping objects safe or spirits well,  
 A space to hide from or to visit pain,  
 An open plain or time in which to dwell

An ending place or start where nothing fell  
 Allowing worlds to move outside your head  
 As well as visit, one another tell –  
 It waits until we're done, until we're dead.

That's from memory but being simple and short is I think correct.

Does brain health have anything to do with democracy? Well I was once told that the word should be democracy and if that view has any validity to it then yes brain health matters. Having a brain, and it being susceptible to good or ill health, is the reality at the base of what is meant by the term "Reason" as used by the writers of the US Constitution. It meant something like "being a person, with all the capabilities and flaws inherent in the human." It really meant all the aspects of cognitive capacity which humans can access in an assertive way, i.e., distinct

from Providence as it could be phrased and also from Imagination as it could also be phrased. Of course Providence and Imagination are not absolutely banished from the idea of Reason – and my apologies if someone has already used this figure and I’ve stumbled on it with Leibnizian tardiness not my intent – but they are somewhat held at a decorous distance. Pure Providence and pure Imagination are left somewhat to their own rightful domains, surely respected, but a distinction is drawn. Perhaps this is because of a factor of time – Reason is the set of capacities we have and can choose to use whereas there are other aspects of human existence which are outside of our ability to voluntarily select. This is a blurry map to be sure, but it is a map I would venture.

Therefore if you want a population to function in accordance with the US Constitution – the words on the paper, not the boat – you need to grapple with the meaning of Enlightenment and Experience as orbiting principles embodied in time.

If you look at moving water as I did today, you will see that where it passes an obstacle it rotates in a scroll shape. However, and this is important: it doesn’t scroll infinitely or forever. It takes a form, and then passes out of the form. In some waves the water doesn’t move per se, that is the molecules, as when you drop a rock in a pond and the rings radiate outward. In a flowing river however the water does move along and Leonardo knew this very well. I think he must have spent a quite a bit of time walking by rivers. Be that as it may, the scroll doesn’t just keep winding and winding until it contains all the water in the river and reaches to the highest height. No, it flips and un-scrolls again. This is one of the wonderful aspects of turbulence and perhaps is why turbulence is still one of the primary mysteries of physics (as per the science of

William Walton, or whoever it is who Quanta interviewed, at Chicago or Princeton, Walter Irvine?).

But the body, the body, the body; the brain, the brain, the brain. They are like water too.

Why are so many subjects in Leonardo's depictions smiling? He may have smiled himself, but I have an inkling that he may have forgotten sometimes to smile and greatly enjoyed it and benefitted when others did. His life companion appears to have been a jester and trickster. The Holy Fool of Eastern tradition is not irrelevant here either. A smile or a slight smile rather, not a grin or guffaw no, but a mild smile can help relax the muscles of the face and head, unfurrow the brow, and avoid neuralgic discomfort of the resting cranium. These words are nonsensical, I know that. If you frown while meditating your head gets tight and hurts. If you frown while drawing, I dare say your hand gets tight. If you frown while breathing your chest gets tight and you don't get air. If you don't get air your brain gets badly cramped. It gets smaller and since space is the great amplifier of any lever that has a fulcrum it gets much, much weaker. It gets to be less by being too much.

In many ways the great displays of potency in the early internet were unevenly enjoyed. Is it any wonder that those who were rejected would snap back in hostility? What is now old novelty for the salespeople of information is still novel for those who have preferred AM radio for these long years past. This is really none of my business, but if commercial flows rely on behaviors of either pleasure or pain that stress brain health then the political expressions of the people in that economy must be expected to express themselves accordingly. Leonardo called

this function *Necessity*, *Necessita*, and he capitalized it so we wouldn't miss the boat. Perhaps I will need to add a section at the end, an Appendix of all the good Leonardo quotes. Many are cited in the web logs I suppose, certainly all the best ones in the story I'm weaving are there unless I've missed them.

The body cannot be left behind except when you-know-what, nor should we want it to be. It's one of the great gifts that we can become a literal mountain and lose proportions of space and time when we meditate, becoming like carved mountains of jade just by sitting for a while. There is no greater gift on this planet, nor any gift more taken for granted. We should all be very thankful that water flows, and vortices can lose helicity! Leonardo just wanted us to sense the reverberation of vortices and their dissolution and see that there's no empty space there. But even on the smallest atomic level you can't really see it and you have to feel it. That's why playing basketball helped me so much for so many long years, the sound as much as anything. The sound and the people.

Yet the body doesn't need to do anything inordinate for our purposes here. We just need not to forget it. Electronic screens are fast, especially for writing book drafts, but they hurt our eyes and heads. Leonardo was certainly blessed that he never had to look at a single one.

Brain health and body health go hand in hand. Even the body of the polis is affected. So I'm not trying to be escapist, even if I am trying to fly by the nets of Marx and Freud. Let me rephrase that: even though I flew by them. Nor do I wish to constrict anyone's freedom to fly

by what they need to. Well, I wish to, but I wish not to wish to and I wish not to have my wish granted. You could also say that to have the wish granted is to have the wish denied.

I had a list of topics but decided not to look at it anew, but one item was that the *Mona Lisa* is meant to be viewed daily. Yes I know you can laugh and guffaw at me all you like. However, in my opinion it is meant to be so viewed. Leonardo knew all about copying so don't tell me about the Louvre or whatever. I should rather tell you about the Louvre, sir. If only such days of daring-do and gauntlets and such were still viable, I might. No it is better to calmly just say that Leonardo made copies for a living for years and he hired people to make copies for a living. Anyone with a little geometry knows what copies are and it is my sincere opinion that he prepared, Leonardo, for the eventuality that the *Mona Lisa* would be copied, and what's more, he contemplated its reproduction in very high numbers. You may also suggest to me that this is not possible for him to have thought this. I appeal to your common sense though to see the simple actuality of it though.

In the recent days of this overall compositional time in my life, which started in January of 2018, I had another idea called "The Work of Art in the Age of Network Reproduction." Most people won't care at all about that and I apologize that this paragraph turned into a graduate school anxiety dream. Forgive me.

Our own bodily awareness is so very important to be attended to daily, even if we only heed the words of Groote. When I was at the meditation conference in November two years ago almost exactly Jon Kabat-Zinn mentioned the importance of yoga in addition to meditation in his own ability to get results. My back is tighter than a sack of garlic bulbs around the

shoulder blades and neck from working with a mouse and keyboard so leaves and the mud of a forest are a beneficent bounty. The enclosures of the pandemic are detrimental but can perhaps be instructive.

The golden rule of reciprocity may have dust upon it, yet because the planet is a place of life and the principle of health applies it can never rust.

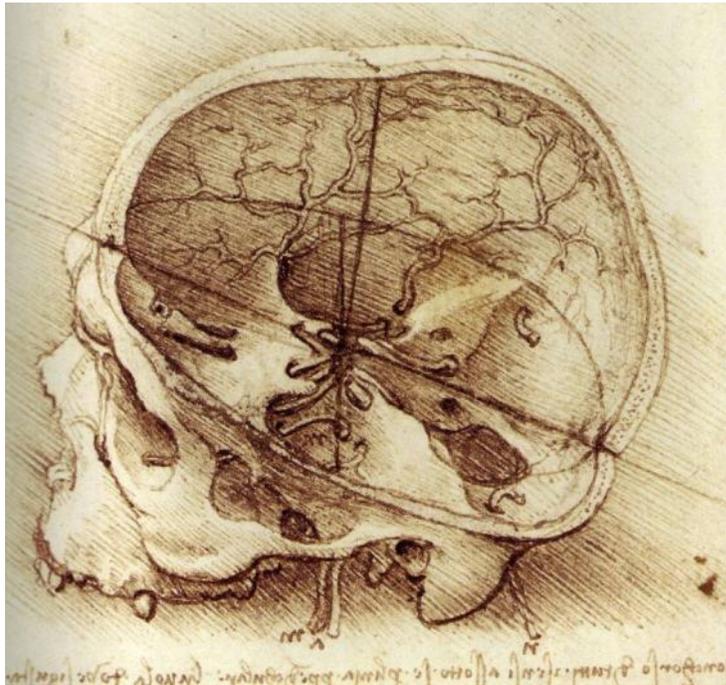
Graphic 16: 11/14/2020



Web log 17

## The Mindful Mona Lisa: Art and Hippocratic Medicine

By Max Herman  
Saturday, 09/05/2020



As the Anthropocene age continues to dawn on us, the effects of our presence on this planet increase. Some are perhaps benevolent, but many damage the natural world and show little sign of stopping. It is inevitable, then, to want to heal or repair the harms we have inflicted on the environment, other species, and ourselves. Indeed the urge to heal our world goes back to earliest human prehistory.

To heal so many complex and interconnected systems may require a new and more Hippocratic understanding of identity. Where once we viewed ourselves as owners and consumers of the world, we must now evolve into healers in how we work, think, play, produce, consume, and communicate. This is a major change but one we have specifically evolved the capacity to accomplish, even rapidly, when circumstances demand it.

Hippocrates helped define the practice of medicine in ancient Greece. His [school](#) is likened to Thucydides' style of history: to observe accurately, to maintain non-judgmental awareness, and to learn. Imposing

control is viewed with caution, as it can often harm the patient or distort their history.

The Hippocratic corpus took shape during the age of classical Greek tragedy, each [informing](#) the other (see J. Jouanna, "Hippocratic Medicine and Greek Tragedy"). Just as tragedy is ancient Greek medical theory for the body politic, Hippocratic medicine focuses on observing, ameliorating, and learning from disease. In tragedy it is the urge for power or hubris that causes the malady.

Leonardo studied another poetic work, Ovid's *Metamorphoses*, in which all life is viewed as change. Leonardo believed visual and verbal imagination to be intertwined, writing "you may call them both either poetry or painting," and that the earth is like a body, always changing: "we might say that the earth has a vegetative soul, its flesh is the soil, its bones are the arrangements of the connections of the rocks...its blood is the veins of waters."

Neuroscientist Peter Sterling writes in *What is Health?* that the concept of "allostasis," or "stability through change," should replace "homeostasis" or equilibrium, adding that "Network medicine will need to include the uniquely human aspects of our design -- those governed by our obligatory and intense sociality.... [and] capacities for sacred practice: music, prayer, and contact with nature." Health is now being understood with greater complexity, applied not just to crises like COVID-19 but to climate change and economic inequality. As Sterling demonstrates, the "buy and consume" view of agency--our sense of our ability to act and exist--is insufficient not only for beauty and ethics but for preserving life on this planet.

Hippocratic Anthropocene agency may lead our understanding of aesthetic experience to evolve yet again into both new and re-discovered forms. This will impact what we consider beautiful and true, thus shaping the desires that drive market economics and many other aspects of society.

The *Mona Lisa* is an ideal of what flowing, dynamic, balanced change can achieve toward human wellbeing. It blends expression and meditation to help us imagine and foster health just as the natural world has always done. To learn this, we need only to look and listen with the avid respect that defines the highest aims of all traditions.

Next week: Portrait of Experience

Essay 17: 11/15/2020

Hippocratic Anthropocene Agency is something which I think should be considered. Not that I want to force everyone to be nice all the time – as Frost said, we get forward as much by hating as by loving – but that it's a proposal I wish to set out upon the communal table or as they say, deposit into the library. There's no pressure other than that of your own wishes to have the best life you can. Take it or leave it. All I can do is put my little ship &c.

Last night plans changed and I didn't get to the waterfall, which I really wanted to do. I went to the river again instead which as always never disappoints. While walking – driving actually, to the park, but also while walking across the very extensive flat part to the river's edge – I had an idea that Leonardo very much predicted and wrote for me as a particular reader, and painted for me as a highly particularized viewer. Let me explain what I mean.

The mnemonic I used so as not to forget, because I am at the anxious part now of the book and hoping for it to not diffuse but rather resolve somewhat back to its root chord, last night walking across the flat part of the park was “mired in the medieval.” My feeling was that Leonardo knew he was at the start of something, a new rebirth of ancient knowledge and a release from a somewhat restrictive orthodoxy. He didn't see himself at the pinnacle of history I do not think. Some historians take the easy path and say “past figures had no self-awareness, they thought ABC all in unison with no possible anticipation of our subtle wisdom of today.” I would say this is wrong. Some today are blinded, and many of the past saw very clearly both forward and backward, within and without.

Leonardo was savvy. He understood numbers and banking and the textile industry. He saw some poets drawn and quartered while others received plentiful capons and sack glazed with medieval jellies, lutes aflame and cushiony pillows. He knew that the world of his cities was emerged somewhat from the medieval mire, and that it could lapse back quite easily. He also knew that once certain things are afoot they don't completely disappear unless the whole system is buried in ash for some reason.

Though I have no documentary evidence whatsoever, let's speculate that Leonardo said to himself at some point "I'm here at 1500. A lot has been done but there's been a lot of stagnation too. A lot has gotten re-started and maybe will stick this time. I see the young and the old, the serf and the noble, racing to surpass each other in art and science for the same old primate urges to fill up the privy. Where will we be in five hundred years? I advise avoiding work that dies with the author and follow this advice myself.

"I want to create the greatest possible painting, and I want it to be seen by those who are able to appreciate it (for a painting not seen is only half a painting). The people of today I can barely keep from boiling me in oil. I shall address myself to people of the future, and not just with letters (so easily distorted and destroyed alas or perhaps thankfully) but with the full Imagination, the full *Esperienza!* I have slaved for the Medici well enough and shall make at least one set of garments my own. I shall attempt the ultimate possible achievement in a painting."

Leonardo knew that the greatest possible painting can contain truths from science and all forms of human knowledge because it is a mapping function. He explicitly discussed the very

first cave painting so don't tell me he was just "a creature of his day" or some other horseshit. Forgive me but all your constant blather that I'm full of it is frankly just a spewing field of horse pebbles sometimes. I must risk your disapproval I fear. Leonardo looked ahead to the fullest possible future of painting, its ultimate possible achievement.

He knew that over time I would appear. By this I mean: a person living in a society with lots of art and lots of science but not yet sustainable. I am still in crisis. Leonardo foresaw the superstition of science and the superstition of art, phrases I typed into my handheld device last night so as not to forget, and he knew the superstition was caused by their separation. Therefore he foresaw us dear reader as the penultimate audience, the penultimate viewer.

Leonardo also fully understood the plot-making and stagecraft of the transitive painting of Raphael and others. Raphael had it too easy in some ways to delve into the darkness like Leonardo did. Leonardo saw the false paths and dead-ends we would take (or rather wouldn't get off) in science and art, monuments of weaponry and decoration. (Take note that the *Mona Lisa's* clothing is very understated for her rank and the standard of portraiture, but in the BGE hypothesis it is richer than any other garment in the history of the garment industry.)

Leonardo foresaw our dilemma, and imagined the re-integration (not just in theory but in reality) we would need to survive and painted it for us. Yet the grand success he achieved was that his painting is not finished, not complete, until we complete our role in it. Our role is to experience the unity of things in our living bodies by *Esperienza*. At the time that the painting achieves the ultimate possible achievement that a painting can, we have entered a new era of human history. This is geometry.

I have a relatively short span of time to write just now and need to move on. I need to boil this down for you a bit. The takeaway just needs to be “talk and listen about what the bridge means.” That’s all you need to have as a basis. The rest can permutate from there. If you see the *Mona Lisa* as a dinosaur best left in a dusty archive, I can commiserate, but please commiserate with Leonardo too if you can, or with me, and recall that not only can one not jump over one’s shadow but that all points on the planet can be traveled to from all others. As Buddha said, don’t circle the mountain looking for the best place to start up; start up from where you are.

Another thought I had this morning during my noble five minutes is that no matter how much money you have, you still have to meditate. Your money can’t meditate for you and without meditating your brain will get sick. There’s no way you can cheat this fact. And if you wish to view me as a destroyer of tradition remember that this is also the core message of the Bible, by the by.

Certainly medicine is big business and that is a relevant concern. It’s best not to put people out of work when you don’t have to, or if you do, make it gradual so they can find other jobs. Hippocratic agency or “*mode d’emploi de la vie*” is cautious in this way but can yield great effects. Like a simple mask as it were can stymie the deaths of millions. If I take a Hippocratic view I don’t have to get a Ph.D. and be the king of Harvard and tell everyone to think about the bridge. Only if I want that living and that livery do I need to court Harvard Yard. I can just put out the material on the internet for free. I lose revenue of course, income, and perhaps even personal credit (which still irks my last infirmity of noble mind) but even on the last of these

one takes one's chances. Do we really want to chop the baby in half? It's fairly simple game theory or in other words a strategic pawn sac. Not that I'm any good at chess, because I'm not.

Hippocratic agency is a different way of finding fulfillment, success, power, glory, triumph, income, status, and joy. It's a sharing ethic. It's a bit like laughter. Do you really want to be the only one who ever makes people laugh, like they will be sent to prison if they try to make each other laugh? That's insanity to anyone who has ever enjoyed the pleasant lightness of eliciting the laughter of another. We may drag ourselves into the bottom of the guttural sewage at some point but the lightness of laughter will stay memorable.

Once you divest yourself of Autocratic Agency (the evil flip side of Anthropocene Agency) you can say "oh my gosh it is so much simpler!" And this matters. You can hum to yourself, should you wish, the Aaron Copeland song now which I fortunately learned to sing in grade school i.e. horribly before ever hearing the Copeland version and loved it no whit the less. So chew on that.

Hybris is no proper salve for anxiety though. Honestly that is the core of Hippocratic theory if you think about it, i.e., "avoid hybris." The etymology of "hybris" (pronounced "hyo-briss" but permissible to spell with a "y" according to at least one dictionary) would be interesting to check. Does it relate to hitting? I think it does, to hit or strike. But if it related to fire that would be interesting too. Fire is a metaphor for anger, as in this this poem by Frost, sometimes:

Some say the world will end in fire  
 Some say in ice.  
 From what I've tasted of desire,  
 I hold with those who favor fire.

But if it had to perish twice,  
 I think I know enough of hate  
 To say that for destruction ice  
 Is also great and would suffice.

The wonderful, or one wonderful, thing about the *Mona Lisa* is its “stately and grave bearing” (which just popped into my head, it is a phrase from Leonardo’s sea-monster poem) or as one could say its embodiment of the necessity of gravity, water, mountains, and time. Everything is present with no empty gaps. Another thought I had about fullness in mapping is that any map of just two points is accurate in both distance and direction. It is when you add more than one that you have to go a full 360 degrees and measure distance. That’s a huge difference. But I digress.

The bridge only makes sense if you feel the gravity and the geologic time of the painting and avoid getting swept up in the frantic frenzy of either the science or the art. You really do need to settle, so to speak. Can you feel your entire personality as a geologic flow? The whole flow of history, nature, and also technology? Also the motion of your eye as you view the work. I’m glad I just remembered now that you have to challenge yourself to hold eye contact with the *Mona Lisa*. Try even just thirty seconds and note what feelings and thoughts you have. That was the starting point of my five-minute viewing on the airplane: “I owe it to Leonardo to try to hold eye contact with this painting. Why is it disconcerting? What am I afraid of? Have I no home or peace within that I should be buffeted about like a leaf on the wind? No, I do have a home. I don’t need to cower or doubt, I can sit and calmly breathe. This sitter is just offering eye contact, not servility or exploitation. The suspension of particularization is Hippocratic; the

sitter is a peer experiencing present-moment awareness.” (Titrating and calibrating your own slight smile is crucial in finding this state of simple yet alert calm.)

Leonardo knew exactly what would be killing us today, our impulses and disregard of art, science, and each other, and the pollution and violence this disregard sows like poisoned fields in its path. He knew damn well what we need to figure out and he painted a painting which IS the figuring out. His painting doesn't exist until we experience our own capability; the transitivity cannot occur. I shall communicate this to Professor Bambach if I am able.

I was not able to get a message to Andrew Sean Greer, the author of *Less*. If his next novel is titled *Focus* or *The Pocket Glass of Sir Reginald Temple* that will be a hint that he has read *Six Memos* and taken it to heart as have I. He can be Larry Bird and I can be Magic Johnson. We can form the cutting-edge jazz duo Magic Bird. This cannot happen of course because I am an obnoxious person who says things like what Chekhov described as “cockroach wine” because I lack conversation skills and fondle my own anxieties and do protest too much. This is just fanciful speculation.

I'd also like to thank my book club. They put up with my insistence that every book is about Hamlet and Oedipus and have helped me read, learn, listen, and converse so much more over the last decade than I otherwise would have.

The snow was melting last night at the park by the river so the grass was muddy. I walked along the edge but didn't leap from rocky outcrop to rocky outcrop over the currents because the water was high, I had my snow boots on which are too large for me, and it was dark. But I did take some photos of the snow falling and found the wonderful driftwood staff

and tried holding it. It truly does make one feel a flood of sensations to carry a stick in the forest. Maybe this is just for people from Minnesota or young middle-aged white men with a lot of issues.

Why do we buy products? To feel good. Necessity is not often the only factor in developed modern economies. We buy A and not B for aesthetic reasons. What if our aesthetic was Hippocratic? In order for it to become so, our aesthetic needs to become more contemplative. Perhaps this could be called a “higher-order aesthetic” when we are drawn not just to fulfilling objects but to fulfilling reasons for desiring objects. This is of course underway: we desire cars that don’t pollute and garments made in ways that help communities’ wellbeing. I would argue that this is not Communism, but some people will call anything Communism. Leonardo had a great saying, that if you are trying to make the world a better place and serve a good cause you don’t get tired. This could be called the great relinquishment, which is something I thank the river for every time I cross it (half a superstition and half a reminder).

Yet perhaps this book is not mainly meant to tout a theory about the bridge or the garment. Why would you, the reader, care about those items? I was once advised by a successful novelist that my digressive writing would not deliver satisfaction to readers and published books on paper must deliver satisfaction. I’m not against that in principle; there is satisfaction and there is satisfaction. There must be some, to be sure, even in a massive project of cultural and personal reappraisal. A reasonable take-away could be that meditation helps, it matters, and it isn’t deviant from the hopes and dreams of Leonardo. On the contrary, the two resonate tremendously, and what’s more their resonance offers great respect to indigenous wisdom too. Or I should say, not that an art-plus-meditation line of reasoning will necessarily

respect indigenous culture but just that it can potentially do so in my opinion. I'm committed to doing what I can to make that work. What more needs to be added beyond the ideas of wheels of healing? I could be totally wrong here and need to do a ton of research but there could be a Ph.D. thesis in this that could pass muster in the graduate school of public opinion.

Or imagine the *Mona Lisa* as a play, with a set design, backdrop, and costumes, and two characters: you and the *Mona Lisa*. You are sitting there viewing her and she is sitting there viewing you. It's the simplest of dramas really but to a sensitive soul is it not rife with possibility? Even if all that I can get you to do is look mindfully at the *Mona Lisa* for five minutes that is a takeaway. I'd like to have some kind of a location where you could send your thoughts and feelings about your five-minute meditation but I don't, at least I think I don't. You could just type a hash mark next to your ideas. These things tend to sort themselves out and I'm afraid it might be bad luck for me to type out an instructional hash mark phrase or indicator phrase.

Michelangelo said, "genius is merely patience," and I'm going to see some reproductions of his works at a shopping mall where I tried to make a documentary in 1998, the works being the Sistine Chapel, on December 20<sup>th</sup> of this year. It makes me a little sad that I never got to see the *Mona Lisa* in May of 2019, on what could well have been Memorial Day.

Graphic 17: 11/15/2020



Web log 18

## The Mindful Mona Lisa: Portrait of Experience

By Max Herman  
Saturday, 09/12/2020



As a lifelong pioneer across the arts and sciences, Leonardo took both risks and precautions when he traversed certain boundaries.

Understandably his fame and innovation gained him many detractors. In his own defense against such adversaries he [wrote](#):

“Do they know that my subjects are based on experience rather than the words of others? And experience has been the mistress of those who wrote well. And so, as mistress, I will acknowledge her and, in every case, I will give her as evidence.”

*Esperienza* to Leonardo meant a union of scientific evidence and artistic creation, which through their development over time represented the very essence of the human soul. He wrote that depictions of people should reveal “the purpose in their minds;” could the *Mona Lisa* be such a portrait of the philosophical ideal he personified as a woman and pledged always to honor?

Leonardo produced numerous allegorical images, [some](#) clearly labeled with the principles they illustrate and [others](#) not. Since scientific inquiry and artistic freedom were sometimes persecuted in Leonardo’s time he would have had good reason not to label an allegory of Experience, leaving it a mystery or subtly weaving it into a work valued for other qualities.

His drawing *A Woman in a Landscape* has an allegorical feel, but is not labeled. It is sometimes interpreted as a depiction of [Matilda](#) from Dante’s *Purgatorio*, who introduces the poet to that realm of the afterlife and helps to guide him out of it. Yet there is no clear agreement and the subject remains a mystery.

I see in this drawing two important details: a small cascade of water in the left foreground (indicating a stream flowing from left to right then into the center of the background) and the outline of a single-arched bridge over the stream. The image, drawn shortly after the completion of the *Mona Lisa*, thus shares potentially all of its elements with it: a winding stream or river, rocks and mountains, a distant lake or sea, flowing hair and dress, a direct gaze from a smiling solitary figure, pointing [gestures](#), and a [bridge](#) symbolizing an important connection.

Dante, universally revered in Leonardo’s day, wrote “These two places [the eyes and smile] may be called, by way of a charming [metaphor](#), the balconies of the lady who dwells in the edifice of the body, which is to say the soul, because here, though in veiled manner, she often reveals herself.” The *Mona*

*Lisa's* elusive and changing expression suits the dynamic and flowing nature of experience.

Leonardo produced multiple allegories of [Envy](#), of which he wrote "Envy wounds with false accusations, that is with detraction, a thing which scares virtue," and that "Victory and truth are odious to her." (Leonardo sometimes used "victory" as a pun on his own name "vinci.") It is therefore understandable why Leonardo would invest considerable time, talent, and energy into a defense of "sound experience -- the common mother of all the sciences and arts" against the destructive power of Envy.

Widely accepted symbolic interpretations in the *Mona Lisa*, such as of her garment and hair as images of [water](#) flow, set ample precedent for the philosophical allegory of *Esperienza* to unify the work on all levels, complement its aesthetic beauty and power, and sustain Leonardo's most cherished values beyond his own time.

Next week: allostasis and metamorphoses

Essay 18: 11/16/2020

As I seek upon my quest to resolve this book in such a way that the reader feels a sense of something worthwhile I arrived this morning, again after having arrived there yesterday evening, at the concept of home.

Home is one definition of the nature of meditation, and it has been suggested by such meditative authorities as Thich Naht Hahn who I quoted in the documentary I made at the Sistine Chapel mall. Well I made part of it there anyway. One of the better parts, though through no special good work of my own, was made there, mainly due to the good spirits and intelligence of two friends who were and are both artists. I was bitterly hungover at the time but such is the way of the grape.

Home is kind of what one is experiencing when sitting zazen or experiencing breath awareness. You feel at peace and in place. This is the point. Now, the Sterling book on allostasis, the sterling one, makes clear that in order to find energy and nutrients for our stomachs, our shared stomach even, we humans had to roam. We traveled much further and faster even on foot than the Neanderthal. This makes sense, that our yen for mapping would be accompanied by a yen for motion. If you notice one location you naturally seek another, and then to map the space between not just visually but bodily – what are the sensations of traversing the space, the ground. Is there water to drink? Is there food? I don't want to glamorize migration for its own sake, rather to allude to Sterling's very sound science that we have this urge to ramble.

It could well be this urge that can lead us astray, and not trivially, as to Troy. Odysseus was known as just a responsible farmer and householder type until his superiors got it in their heads, as they could not possibly have avoided given their natures and the nature around them, to go upon a visit to the land of stolen wives. Odysseus was swept up in the mix, and had to learn to adapt in order to get back home. All he ever really wanted, with a few exceptions, was to get back home. Therefore we can say that the very first two *magni opei* of the Mediterranean were the going to Troy and the getting back home.

The going, one could say, was an unavoidable case of *hybris* caused by the entanglement of past events and their consequences, a knot of compulsions that had the Achaeans in its grip. Later the return was simple *Necessita*. The return changed Odysseus, the person left over after all the other deaths, the person on clean up. He was the spirit of the aftermath one might suggest.

How to be at home through the vicissitudes of each day, each hour, as well as years and centuries is as they say “the proper study of personkind.” It is the task for our intelligence, which is a network of intelligences. It’s a project we were created to lack a solution for, and hence to fill in the blanks. Sterling calls it “predictive regulation.” If we didn’t have an urge for maps, conditioned by small pulses of dopamine (or as Sterling puts it, satisfaction that cannot be stored), we would never wander about. I think Sterling also said “millions of chickens and millions of eggs.” Wiener called – that is, Norbert – called this vast famished and never-satiated mappetite “the last gasp of the titanotheres.” Our brains in other words being too big for our britches would cause us to disappear, to lose home for good and ever, to whirl off out of orbit endlessly and without end.

I am asking then, dear kind reader, that you consider the experience of home. It may seem confining to you in these days of pandemic viral spread. It does to me, and certainly has done for many of my days on this earth. Home is not always where the heart is. We can't just stay with our parents eternally, to coin a myth. We must venture, each of us, or we wither. And in our ventures we often commit grave crimes and have them committed against us. Yet home is something the body carries with it – the brain carries it as a potential – and if we ruin this planet beyond habitation and each one of us dies without progeny some other DNA on some other planetoid will still carry the home that maps. This is accomplished by a kind of yoke, the breath, or the awareness that braids the sense of place with the sense of motion. This is what meditation cultivates, and what the tradition of meditation teaches us not to overlook as we delve for pennies into our titanotheric speculations. As I believe I wrote here, in an earlier essay, or perhaps it was another book I wrote long ago, I used to have a lovely second floor sun porch amid pine trees to meditate in on Monroe Street. I had a window facing a smooth roof of shingles on Fillmore street (not in the Fillmore, though at one time period that was a dream I had and hope). That sun porch was in a sense my home and balcony. I literally can recall breathing there, the sensation of breathing there.

The wisdom of the teaching of meditation as home is quite natural. It needn't have splendor to be a place of safety and rest. It doesn't need to be a castle or a fortress. It can be a homely hut. Just yesterday at the river I walked out on a tree trunk well into the river, a good twenty feet, to where it crossed another fallen tree trunk. I wanted to cross from one to the other to show bravery for my companion, a willingness to laugh and survive and wreck my handheld device should I have overstepped. I made it out and back by chance. When I was on

the second trunk there was a literally toppling gust of wind – you can check the weather report. I darn close to fell in backward, which I had not planned for, that side being on the side of the big current and much deeper. I would have had my work cut out for me and could even have wound up among the oozy locks he laves. Yet I used my yoga utkatasana flexings and remained a going concern. I crouched, reached my hands to the side, the latter as in snowboarding and the former as in hockey, and weathered the bitter gusts. I squatted down to accommodate the algae which had formed on the tree trunk and transitioned back from the dangerous trunk and strode to home. It was a stretch of sand, sheltered by lovely cottonwoods, having a bench and the remains of a fire ring and charcoal remains. I had uttered that if I were to have to live on that stretch of river that would be my choice for home. It had, as you could say, both shelter and vantage.

The idea of home in meditation should not be overly complicated. It is really, at its core, the idea of habit in the sense of custom and even of garb. One makes one's self at home in the practice of meditation. Why was the sun porch my home, and not the desk where I worked to study the profession of IT professional? Why not the tiny basement that held the furnace and hot water heater? The home was an experience within, not a technical datum, and the experience I had of it took place on the sun porch. It wasn't a balcony, but it felt like one. It faced the pine trees so that I could see the afternoon sun on my left as I sat on my folded yoga mat in the half-lotus position, a far from properly perfect style but it was better than nothing. Perfection in a home is vastly overrated anyway. I could feel the wooden frame of the house beneath, and the ground earth below that, and could see the pine floor boards I had cleaned of paint with solvent and scraped, sanded, and varnished to a burnished glow. I'm not sure if at

that point I was using my hand-thrown meditation bowl by me, I think now not, but I do believe that I would place a candle there on the outstretched yoga mat with my metal Buddha in front of it and my old watch in front of that to gauge the thirty minutes. I had no handheld device in 2010. I got my first one in 2011 because I felt certain I would be judged wanting by any IT employer if I divulged garrulously that I had no handheld device to hold my hand.

The home is a place of habit, and habitation. How often do we realize that habit means clothing and habitation means house? Both mean repetition. I just thought of this myself by golly. To sum up, what makes a place or practice our home is consistency. We are there often. In this sense the *citta*, where one sleeps, is our clothing.

I am a poor reader of Thich Naht Hanh and cannot claim to have well understood his teachings. I have limited myself to fragments in part by design. This was in part to keep from becoming a specialist and in part to cut my own path even if it turned out to be wrong. Hamlet taught this and I accepted the teaching in 1990 – treat them after your own dignity, not as they deserve, for who would escape whipping? I wonder now, writing that, if I considered medical theory a topic for Oedipus because of reading *Macbeth* for my other class in the winter of the end of 1990, “in that the patient must minister unto himself.” I would also like to thank Barbara Fowler, author of *The Hellenistic Aesthetic*, for teaching me a few ancient Greek plays and poems. That was up on the hill by Van Ness Hall I think, on the ground floor. One of my classmates who I didn’t know said “this is my short blond fuck me haircut.” She didn’t say it to me but I overheard it and it became a memory. It was on the very last day of class, after Dr. Fowler had closed the course by reading Auden’s “Shield of Achilles” with nary a breath or a whisper after “who would not live long.”

*Mona Lisa* is showing us a home or habitation, and one most emphatically and by design our own and none other. That is the design task that Leonardo set himself and, what should never be overlooked, us. To acknowledge the web log I must ask you what the drawing means. If you say “I don’t care and have no idea” that’s OK, but forgive me if I turn my attention to those like myself who do care, and do have an idea, such as either are.

“Woman Standing in a Landscape” was painted at the very end of Leonardo’s life – excuse, me, drawn – by Leonardo. He drew it at the end of his life. Some say it is a portrait of Matilda in the afterlife, directing Dante on his path out of Purgatorio. How do we say “out of” in Italian? I can’t indulge myself in looking up of it. *Ex?* That’s Latin. *Outre?* French. “*La via outtra del Purgatorio, la terra segunda del vita morta.*” Or as *Il Commendatore* said so poignantly, “*o mio corso.*” The woman standing in the landscape could be a very important drawing, or could have been to Leonardo. What’s in it?

I see, to be as blunt as I can be in this time that approacheth the end and the death, a waterfall, creek, bridge, and a hand pointing to the other side. This is what Dante sort of told the story of in his *La Divina Commedia*, or was it *La Commedia Divina*? Balzac’s of course, if I’m not mistaken, he titled *La Commedie Humaine*. These names are different, but the same too. Matilda was pointing Dante the way home.

You may think that I am, frankly, full of it, and I’m not sure that I can prove you wrong. It may be time for me to accept that I can’t prove to you what it is I wish to show, and only you can prove it to yourself. I’m just mentioning a few things. If you don’t know how to meditate, try thinking of it as being at home in breathing. Only if these things matter to you, and you

have some concept of what they are, will you understand why meditation matters to the Western tradition and we who live in it at least somewhat and to what happens in our next twenty years. You can keep it relatively concrete in this sense, the next twenty years. You can compare your idea and experience of home to meditation. Eliot called it “*shantih shantih shantih*” or “the peace that passeth understanding.” There are myriad names for it, perhaps as many as there have been places and times.

*Sonata sopra il soggetto reale. II. Allegro.* It’s a flute oriented portion of the offering.

If Leonardo wanted to show us something that we could only show ourselves, how might he have approached this as a design problem? He tells us flat out when he distinguishes *Scientia* from *Prescientia*, in my opinion. Many songs and lyrics of travel and return speak of it. Hamlet’s “the undiscovered country from whose bourne no traveler returns” speaks of it, as do, one might wager, spy novels about people returning from the dead land of amnesia. And I suppose then the Jason would be the pursuer of the Golden Fleece, a myth I don’t know anything about beyond the name.

To be sure the planet is in a difficult time. There have been so many wrongs done the distances to a better place seem unfathomable. In fact they probably are unfathomable. Yet the only next step is obviously a next step. What would you do if you were a nomadic forager and you had ventured far, far from your safe home by the berries and found yourself trapped in a mountain pass covered in snow? You might eat your fellow travelers, or simply freeze to death, but you might keep on going.

Therefore I choose to think of the bridge and the little waterfall in “Woman Standing in a Landscape,” and the Purgatory, and the wind by the river, and home. You will choose what you will.

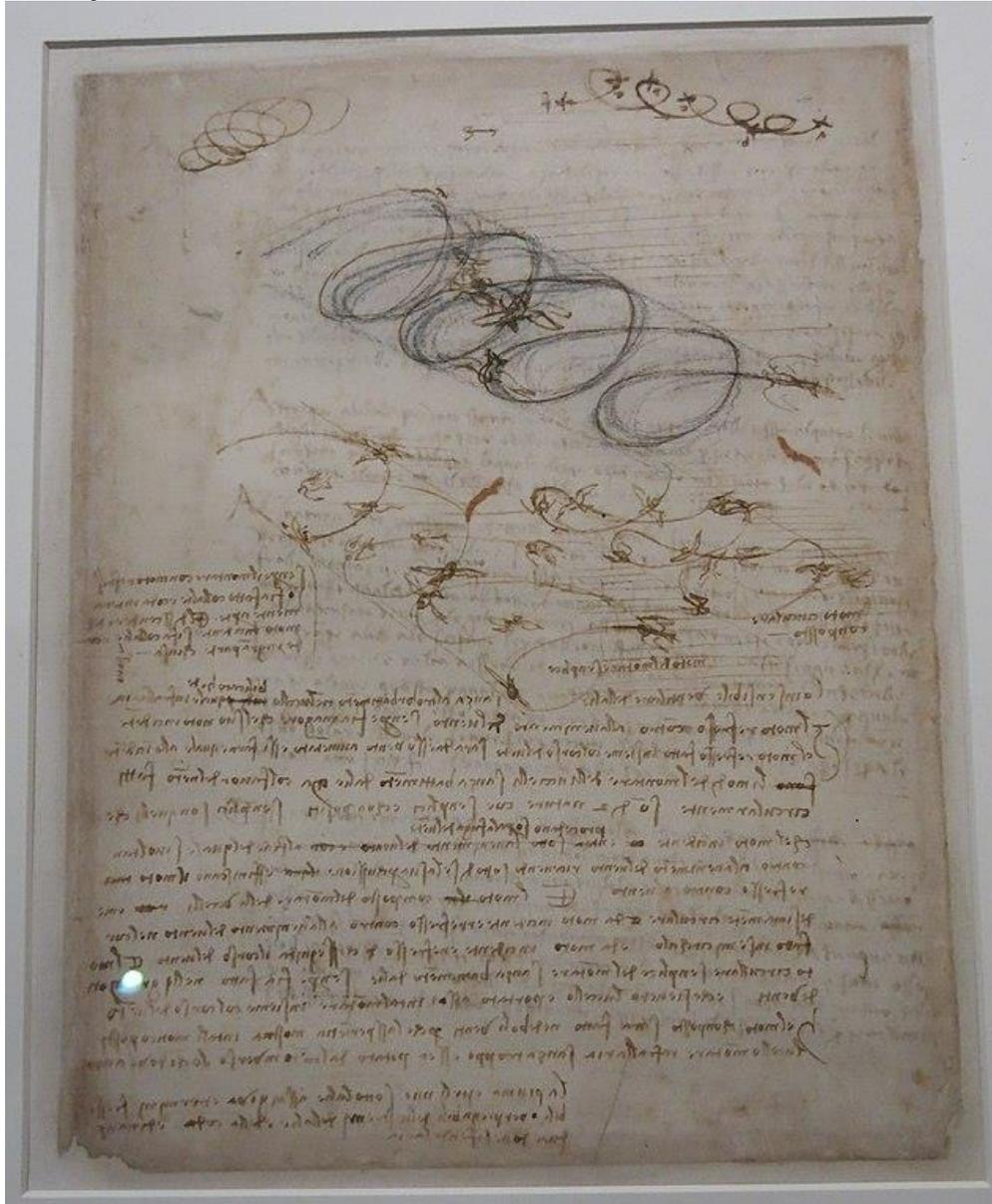
Graphic 18: 11/16/2020



Blog 19

## The Mindful Mona Lisa: Allostasis and Metamorphoses

By Max Herman  
Monday, 09/28/2020



Leonardo was always interested in [motion](#) and [change](#).

Motion of water, air, light, animals, birds in flight; movement of bodies and facial expression, and internal circulation of the blood and breath; change in age, time, rivers, erosion, geology; change in one's ability to learn and make art, and change in society's norms and values about science. He understood that the principles of motion and change at the core of all phenomena in the natural world also govern human imagination in both art and science, writing that "The motive power is the cause of all life."

Leonardo rebelled against reductive, piecemeal understanding and always strove to integrate what he observed into a holistic and rational investigation of the whole. Systems are complex, often chaotic, and governed by principles and forces not directly visible to the naked eye. To identify and understand such invisible truths requires imagination, an inherently creative faculty which goes beyond simple sense perception.

Peter Sterling in his 2020 book *What is Health? Allostasis and the Evolution of Human Design* defines "[allostasis](#)" as "stability through change," and argues it is more crucial than homeostasis in biological systems. Sterling writes that throughout evolution "One key design principle was to regulate in a predictive manner.... Predictive regulation, termed allostasis, minimizes the frequency and size of errors; thus it is intrinsically more efficient than homeostasis, which waits for errors to occur and then corrects them by negative feedback."

Sterling adds, "Research in biology and medicine is now engaged in a tremendous effort to 'reverse engineer' the human organism at all levels.... The idea behind reverse engineering is that by discovering every detail, one will understand the whole.... The stated goal in 'network medicine' is to 'control these systems....' Such a goal is plausible for a manufactured device.... [in which] each part generally has a single function.... But reverse engineering in biology is far trickier. The parts are more numerous by many orders of magnitude.... [and] each part may serve multiple functions and interact with many other parts that also serve multiple functions.... [Network medicine](#) will need to include the uniquely human aspects of our design -- those governed by our obligatory and intense sociality.... [and our] capacities for sacred practice [including] music, prayer, and contact with nature. No useful model of human design can omit these capacities because they affect all of our behavior down to the single-cell level."

Moreover, Sterling suggests that human health crises may require us to "renew and re-diversify the sacred practices upon which H. sapiens depends as a species to relieve the tensions caused by our innate strangeness. This

included music, art, dance, literature and monumental constructions that engaged large numbers of people over decades. Of course, we are already rich in the products of sacred practice – we can enjoy a concert, play, museum, or novel – for an hour or so. But it is the artists who practice their sacred skills over years and decades who benefit daily from the small, unpredicted rewards of improving a skill. Vicarious activity cannot substitute for individual [engagement](#).”

Leonardo wrote, “Just as iron rusts unless it is used, and water putrifies or, in cold, turns to ice, so our intellect spoils unless it is kept in use.”

Next week: Saint Anne and the Stages of Life

Essay 19: 11/17/2020

The Sterling book is a good one and I would highly recommend it to anyone wishing to understand the importance of imaginative practice to human wellbeing. It's not too long. The importance of continuing change is crucial, and it relates closely to the Buddhist concept of beginner's mind. This derives from the *Necessita* that the surprisingly rewarding experience must be unexpected, *a priori*, if it is to release the pulse of dopamine. In this sense change is the ruling principle, and it is only change that allows homeostasis to have a role.

Coincidentally I have communicated the bridge hypothesis to Dr. Sterling and he said "I get it." I will defer to my editor, should one appear out of the mists, whether the name should be changed to Dr. \_\_\_\_\_. (What is the rule for how many blanks in blank? Melville would know.) I could also of course follow up with my conversants and ask if I might cite them. All in good time.

We ought not underestimate the importance of change, our loss of understanding of it – a nearly desperate loss, now – over the last two or three millennia, and the ability of Leonardo to illuminate us as to its lineaments. As Sterling makes clear, no one teaches allostasis in medical school really – though the late Bruce McEwen, friend and mentor to the co-leader of my research group, did – and the oversight is the most fundamental one in science, medicine, and therefore, history. One could call it the great pancake which if not flipped will burn to inedibility, but if flipped, will nourish and delight almost beyond our capacity to imagine.

One irony that I read about last night in Kemp's *Mona Lisa* was that at the time that Leonardo returned to Florence at fifty his reputation there was mixed. Much of his best art was

trapped in Milan and his brilliance was by report. He was not situated to take on grand commissions without question, though he was granted major opportunities in the Grand Council room (to paint war) and some others. He had to sketch a draft of the great *Saint Anne* to get support from the nobility and church. Thus, even at the very apex of his powers of art he was not viewed as a known quantity, and his drastic failure to cast a titanic horse for the Sforzas in Milan lingered around him like a whiff of doubt. It is, perhaps, in this crucible that the *Mona Lisa* was formed – a reach of the greatest urgency from the simple and near to the most distant goal conceivable.

Yet I digress from my walk description. I saw a marvelous bird of prey yesterday at about sunset, four forty four or thereabouts, again at the river flats. I can't describe it but to say it was so large that I thought it might be a juvenile eagle, which are often seen in the river gorge but my sense is that those are mainly summer sightings. This great raptor alit from a tall tree as I crossed the flats and flew across the flats to alight on a signpost. The great sinuous flap of wingspan was, to say the least, transformative. I had seen a large hawk on a little kiosk near yesterday's signpost two or three years ago and must have a photo. What does it mean if it is the same bird? I think it matters, and I think it was the same one but nearly twice the size. In both sightings, the bird alit from its perch by the road and swooped down to a small hillside of tall prairie grasses to seize its prey. It was the same swoop both times. But the crossing back from the tall tree to the sign post by the road only happened yesterday.

In some kind of sequence yesterday I read pages 400 and 401 from my copy of the *I Ching*, and realized that Dante not Odysseus was the pattern for Leonardo. Homer must have lived a good twenty-eight hundred years ago, his epic on the virtue of home almost as old as his

lament of the wastage of war. In the context of the time, home was less homeostatic than it is now. Yet to focus, by Time – Dante was the influence on Leonardo. When Kemp says there has not yet been a full reading of poetry in Leonardo's *oeuvre* he means basically Dante (but I would hope Cavalcanti as well) and of course Leonardo's contemporary friends and social sphere.

It does not please me to admit that I have not read *La Commedia Divina*, and I do not know if Dante returns home alive from the afterlife. (Of course in real life he did, which makes it somewhat OK.) In the Waste Land, the introductory Italian verses clarify that honesty will follow since the speaker shall never return to the living. I don't know if Dante returned home, but to me there is the sense in Dante's epic – and this reflects something of the divergence of monotheism from the pantheon – that returning home is understood with a new layer of complexity. Not to say one is better per se, but Dante is not Homer. Is Dante medieval? He seems like end-medieval to me, with an eye toward something after or just a thought perhaps. He had no urge to impulsively pounce.

Yesterday by chance yet again my spouse purchased a pillow embroidered with the quatrefoil loop of the Mona Lisa's neckline. My sense is that the pattern is somewhat influenced by the Islamic geometries of Venice, so there is no need to interpret Leonardo as a kind of doctrinaire Dantean. There is also the question of a literary commentator I read in graduate school or actually before graduate school, when I wanted to find out who viewed literature as communication and found the name of a German on the green computer screen where people posted their thoughts about postmodernism circa 1993. That commentator – not the German, a different German – called the Odysseusian way of life an "introjection of the

sacrifice.” Maybe that tainted me forever on Ulysses and the Odyssey. But Odysseus just doesn’t resonate in Leonardo for me, and I did score 800 on the GRE verbal and on the GRE subject test in English all these long dreary days past.

Perhaps that there is no home to go back to is itself our home.

I also saw fifty or more ducks at the river yesterday evening after seeing the hawk, a prairie falcon, before sunset. I went to meditate by the river and sat first on some wet sand then on a cold rock from 4:53 to 5:15 post meridian. The ducks were loudly communicating and all alit while I sat, over a fifteen-minute period, not all at once but in three or four groups of which the first was just two of them.

I sat there and enjoyed the water and the waves, it being dark and very windy as well as being forty degrees. I had forgotten to zip up my jacket and got pretty cold but it was a pleasurable cold. Sitting there I thought someone might approach unseen from the bank, me ensconced in my cowl, and smite me with a stone or tackle me into the icy current. Yet I was not swayed and felt sure I could give as good as I got. It must have been during this walk that I felt returning home was not quite the full flower of what I feel Leonardo was trying to imagine and help see, geometries aside.

What this means dear reader is that I am not sure how to sum up what I think you will gain from this book. A feeling of home and place from meditating is part of it; that meditation and the brain are important to Western art including Leonardo; that the truest reading of the *Mona Lisa* must include his often poetic writing and the metaphors of bridge, cloth, experience, and hand gesture. Even this short sentence is a lot. If you are so inclined you could boil it down

to “the bridge is the key to understanding the *Mona Lisa*, and this was discovered on the 500<sup>th</sup> anniversary of Leonardo’s death by an American writer from Minneapolis, the City of Lakes (*Citta del Lagi*).” Or even further, just to “the bridge is the key.”

Why does the *Mona Lisa* matter? To some it already does and always will, but to others it is a mere nothing. It is possible for an object to become nothing, for its entire substance to disappear from life. I do not wish to debate whether it matters, or how much. I’ve been somewhat clear I hope about what it means to me and why this matters perhaps and perhaps how. I try to accept that to many it does not matter or is hated and alien. I understand with remorse that some idealize it without seeing it and use it as an idol to fuel unmerited fantasia of cultural luxury.

If it does matter though, and to that extent, it matters if we have failed to understand it by design, lack of effort, or both. I read in Kemp last night that we forget how much older Leonardo was than Raphael – thirty years, which is an eternity in those days. Raphael was like a millennial. But Leonardo was an old soul, and even if not a child in the 1450’s he had a stronger sense of the Medieval and its stony towers, walls, and fundamentals. He was steeped, we might wonder, in the age of Romance and knights errant, mystic pagan quests, tapestries and muddy slaughter, incense and Gregorian chants. Raphael had the weaker, one might consider.

As one layperson to perhaps another, this may be my simple query and topic for conversation – did we overlook the bridge. Did Leonardo hide it on purpose, while also guaranteeing it would never be lost? This would be an engineer’s and a poet’s device. Did it hold up?

If the West has lost itself then it makes little difference how fiercely we make wars of defense. Even if there were no more war, we would want to find what we had lost. If finding ourselves means making the planet a union of all life, and losing our hate, perhaps that is still worth working for. You can choose your own choice.

Leibniz was a fan of the I Ching, and owned a copy of its square-in-circle diagram which I have photocopied. It hangs on the wall somewhat obscured by a bookshelf I recently moved from the kitchen to my desk. It has sixty-four variations in a ring shape, with a poem or something, instructions maybe, written in a square inside the circle. It looks like there are sixty-four characters in the square too, eight by eight. I'm far from an expert on the I Ching but it came to my attention over the last year or two, perhaps from reading Lee Smolin's interesting ideas about time and Leibniz and the need for physicists to be more poetic and visual. I did read Jung's comment on it, and his practice run which I have forgotten but which did seem worthwhile to me and to have been so also to Jung himself when I read it.

To gain some traction away from what I felt had taken a wrong turn, a too-plain emphasis on return to center lacking sufficient interweaving currents, and become a disembodied formula when it should have been a fabric of bone and flesh teeming with blood and breath, I decided to read and choose an I Ching selection as did Jung.

The book opened itself to page 401, for "Chun, Difficulty at the Beginning." Here is what I can recall from that page read yesterday. "To serve others is the definition of success." The image is of thunder to break gridlock, then rain. When the superior person subjects themselves to the inferior then all the people's hearts are won. The person is not a robber, but waits to

woo. The maiden does not pledge herself. She waits ten years, then pledges herself. The horse is disconnected from the cart. There is hesitation and uncertainty because the nine precedes the six. The six is central and correct, but the nine is a bit over-much. The need is to do what is right, so the agent is not a robber. There is at the start danger, or “K’an,” so doing nothing is not an option.

I have spoken nearly nothing about the web log, allostasis. My research group was contacting Bruce McEwen possibly about the *Mona Lisa* or Italo Calvino before I ever heard of Peter Sterling. McEwen had a concept called “allostatic load” and how poverty changes the shape of our brains for the worse. This is a fairly simple medical imperative, and can infuse our manners with each other so that we can be more like Hippocrates to one another when we get together. Leonardo was a healer too, though he had an observer’s ethos. He did try to serve others and in so doing himself. Leonardo was perhaps in his way a physician too, who took the poet’s license to imagine the health of the entire planet and all upon it. Moreover, he took action. I respect that.

I certainly never thought that I would see vortices and metaphors of crossings and *Esperienza* across the paintings: the *Saint Anne*, the *Yarnwinder*, the *Madonna of the Rocks*, *John the Baptist*, the *Last Supper*, and *Salvator Mundi*. I thought it was all a flight of fancy, just something to do. But what if it isn’t? If east and west, middle and indigenous intelligence can converse without slaughter is that not a story I can take an aesthetic interest in, and carve into an object for my personal contemplation not unlike a sapling stripped of bark and trimmed of twigs by a bi-toothed bite? I don’t even have to ask, of course. It’s just my hobby. The bridge is a gauntlet though, without doubt it is a gauntlet.

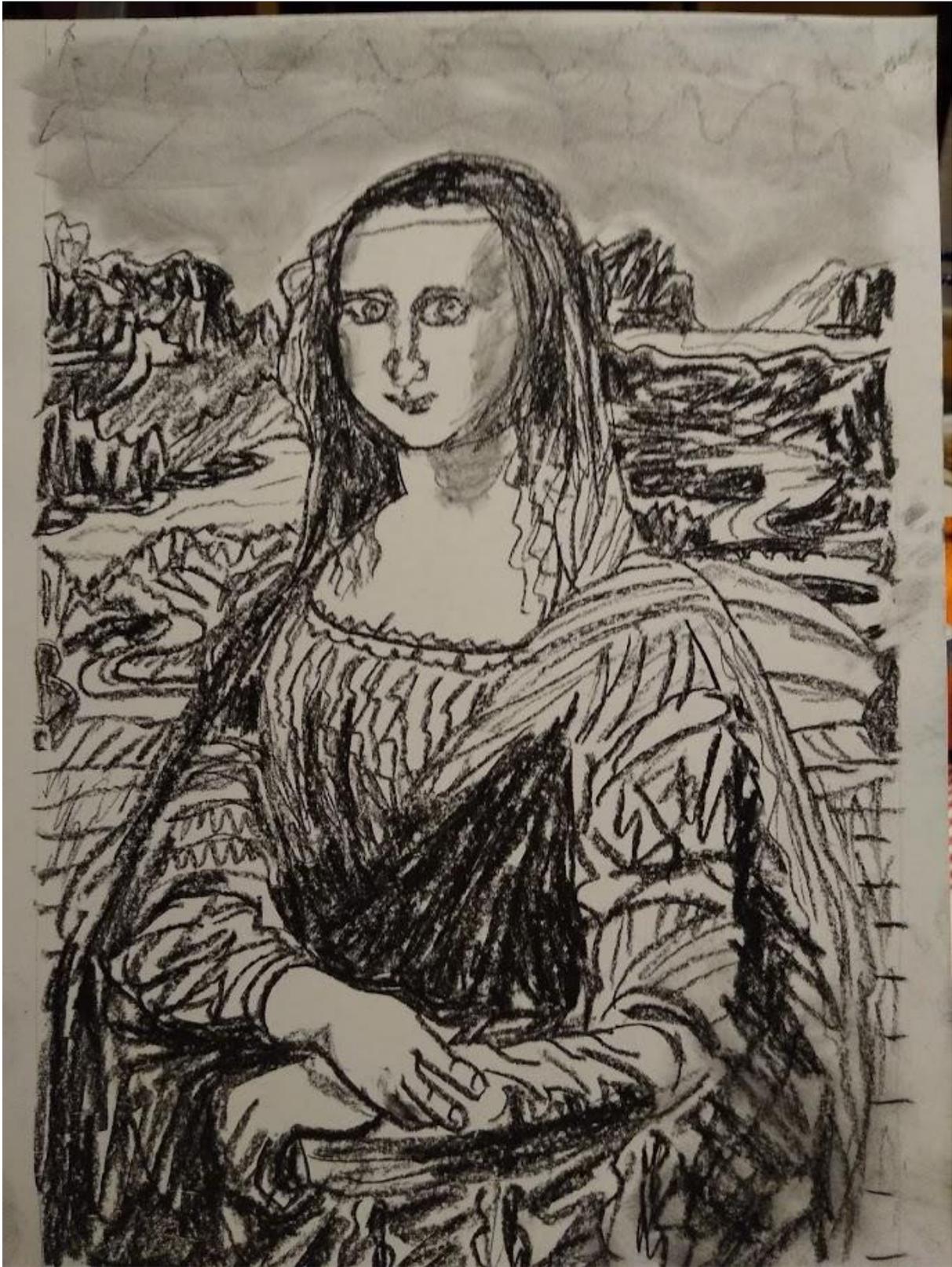
I offer, further, this: ask a child what is the bridge. Ask a child, and if you might be so chary tell them not what to say. Pass the puck as they say, or, as is also said, dish. Every rivulet matters.

Ask the child something which is not a command – is it not curious that this must be considered? Is it really your business to wrangle the lamb could be a question for your heart of hearts. Enough talk. Ask a child what they think and see, and then do your simple part to listen.

The child need not be a literal child, should you know none or should they be more interested in let's say knocking magnets off the fridge and watching you pick them up. You could ask a friend, out of the blue, over coffee from two meters' distance. If you have no friends, that is completely OK too. You can just look at the *Mona Lisa*, because whether you want him or not Leonardo is a potential friend. You can email university professors of art if you wish, or use the internet to send out comments and questions, but please don't be pushy. People have enough encroachments on their time and peace of mind already. Politeness and decorum are underrated and can actually be thrilling.

The days ahead could well be full of more fire and flood. Be that as it may there is always more to the world than those two culprits.

Graphic 19: 11/17/2020



Web log 20

## The Mindful Mona Lisa: Stages of Life

By Max Herman  
Thursday, 10/08/2020



Recently I started looking at Leonardo's *Virgin and Child with Saint Anne* in depth for the first time and got an idea of the following interpretation:

1. The landscape is very vertical, going from mountaintops to rivers to lakes or seas, then to earth with vegetation and finally crumbling pebbles at the bottom.
2. The background is therefore the macrocosm, high to low.
3. The people are a human landscape, also vertical.
4. Saint Anne is Mary's parent, the oldest and greatest, representing Nature.
5. Mary is the next largest figure, child of Anne, representing Experience/Esperienza, the same allegory as the *Mona Lisa*.
6. The infant Jesus is the child and pupil of Experience, which is to say, the artist or human/divine hybrid, the present-time being.
7. The still-infant artist/scientist/human agent is wrestling with the lamb, mishandling it.
8. The lamb represents the lowest level of power (innocence, suffering, sacrifice, time, mortality, opportunity, life as such), and is reaching out to Experience.
9. Experience is the guide, parent, instructor, and guardian of the artist, and pulls the child back from their rashness.
10. The disobedient artist doesn't really want to obey, but is weaker than the parent and therefore does.
11. Nature looks over all, calm and interested but also disengaged, crowned with the vortices that drive all processes that traverse across levels.
12. The sequences are therefore cyclical, like a linear loop or feedback system, within both the natural and the human cosmos.

I am still researching this hypothesis, and it is speculative -- offered with a grain of salt in the spirit of poetic license -- but for me it resonates with Leonardo's own words:

"If you condemn painting, which is the only imitator of all visible works of nature, you will certainly despise a subtle invention which brings philosophy and subtle speculation to the consideration of the nature of all forms — seas and plains, trees, animals, plants and flowers — which are surrounded by shade and light. And this is true knowledge and the legitimate issue of nature; for painting is born of nature — or, to speak more correctly, we will say it is the grandchild of nature; for all visible things are produced by nature, and these her children have given birth to painting. Hence we may justly call it the grandchild of nature and related to God."

"Experience, the interpreter between formative nature and the human race, teaches how that nature acts among mortals; and being constrained by

necessity cannot act otherwise than as reason, which is its helm, requires her to act."

Leonardo may have imagined after painting the *Saint Anne* something different than the verticality and hierarchy, having more unity and a subtler interfusion of elements, more cyclicity and less architecture, leading to the more spherical and flowing cosmos of the later "universal picture" the *Mona Lisa* which is also an allegory of Experience.

Comparisons can be made to other bi-diagonal compositions by Leonardo such as the *Madonna of the Rocks*, *Salvator Mundi*, and *Madonna of the Yarnwinder*. *The Last Supper* is also a waveform centered on an intersection, i.e. that of the horizontal axis with the line of perspective.

Next week: Turbulence and Renormalization

## Essay 20: 11/18/2020

There is an assumption implicit in what I'm trying to do here: you care about aesthetics or contemplation or both. Which is to say, you care about painting and poetry, which are modes of aesthetic experience or art, or you care about mindfulness, meditation, and contemplation. You might care about both, and might even care about how they may be related (such as both occurring in part within the human brain). There are people who don't care about art, don't care about meditation, and don't care if they are related.

If you care, it is only because you have at some point felt a need to care. The pressure of this life has applied itself to you, and you sought recourse in a selected behavior which both art and mindfulness are, i.e., chosen. You came to a crossing and made a choice. Your choice could have been to play hockey and listen to heavy metal music. Or you might have chosen to garden and paint watercolors. There are an infinite number of choices, and you may have made yours really without much conscious deliberation at all, using your instinct and intuitions rather than a Ph.D. In any case, if you are bothering to read about the *Mona Lisa* and mindfulness and how they relate you must have some concern.

Why you have a concern I cannot say. It may be to do yourself a service, or to try to help others. It might be a mixture. Maybe this book has been assigned to you by an instructor or a loved one, or someone you want to love you. In any case there is a *Necessita* about why you are reading this, even if it is just random chance like two water molecules colliding in the ocean. My role is not to tell you what your *Necessita* is. That would be presumptuous, and

even if I could know it would be a waste of time to try to tell you. Your necessity is what you know of it yourself and nothing else.

All that I can do is create a stone circle of sorts for you and point to it. One exemplum could be that there is a chiasm in the *Mona Lisa* from the lower right to the lower left, clockwise: right-facing pillar base, left-to-right river, right-to-left river, left-facing pillar base. Certainly there is a bi-diagonal structure in the *Saint Anne*, even down to the lamb reaching out to experience with its foot. (I don't see how you cannot feel that proprioceptively in your own ankles, but maybe you can't. The same applies to Mona Lisa's right wrist.) The bi-diagonal is another view of the x-y axis if rotated and it does have a different geometric import, to my eyes, something like the crossing of flows rather than fixed dimensions like vertical and horizontal.

Yet in the *Mona Lisa*, there are more loops and orbits than simple bi-diagonals. There are more vortices and spirals, and the overall form is of a stable triangular base like a mountain surrounded by all the spheres of water, air, light, earth, nature, and art. I took a lot of photos of armillary spheres at the Galileo Museum and was trying to relate them to my *Solstizio Calvino* stone circle idea, during the same visit and just before I went into the basement to see the exhibit of Leonardo's Books which I almost skipped due to museum fatigue. I also bought a nice print of the cycles of the moon from a small shop in Florence, which was printed by a modern printer but on 17<sup>th</sup> century paper which had letters from the family ancestors of the shop owner written in Latin on the flip side. Moreover, if you look at Il Duomo you will see a very great diversity of rotational geometries from the clock to the floor tiles. Or in the case of antiquity, the arcing path of the sun through the cupola of the Pantheon is another example.

What Leonardo is doing in the *Mona Lisa* is in many ways a fine assemblage of rotational and spiral geometric forms, infused by verbal and visual metaphor, to induce in the viewer a bodily experience (with all the senses including the *sensus communis*) of the full cosmos both inner and outer. This is the ultimate goal of painting in Leonardo's view, the absolute of which he speculated it was capable of expressing, and what he attempted. Pass, fail, you make the call, but that is what he attempted. That is his design.

This system of orbits is different from what we have in the other *chefs d'oeuvres* by Leonardo's hand. *The Annunciation* and *La Cena Ultima* are built on the horizontal axis. Several works are bi-diagonal, with the *Salvator Mundi* being the most obvious. The *Saint John* is something like a twin system, with that of the saint falling away smiling as he points to another system which does not yet exist; it is a falling sphere and an infinitesimal point at distance, both suspended in the void. *The Mona Lisa* is neither chi-shaped nor built on the x-y axes, but contains elements of both in a woven fabric. Much of the form is imaginative, as I imagine each strand of wool or silk to be a twisted braid that looks sinusoid from the side and like a yin-yang in cross-section. Leonardo is not too far off in wondering if vortices are not the basic form of all phenomena, yet for our purposes here we only need to meet him on his terms as he portrays the life and form of this planet.

We should also not forget that Leonardo announced quite plainly in his notebooks that the sun does not go around the earth, but vice versa, and that he would have told us more were it not punishable by death to do so.

In Buddhism the rotating sphere is also the image of the universe as well as humanity. A stone circle may not appear to be rotating, but it absolutely is and its stillness makes it rotate all the more perfectly. If you think this is a kind of superstition, I urge you to rethink what it is when a stone circle is placed with alignment to the four polar directions. It becomes literally a structure that revolves exactly with the timing of the entire solar system and even the galaxy. Can you then not imagine being inside of that nested armillary sphere of clocks, and that even your own body is a clock? Every breath and pulse of blood is a quantum.

Sterling writes that one of the first developments in biological life on this planet was a clock. Certain cells took up a chemical element which had a 24-hour reaction cycle, so that it took one form during the day and another at night (though for no reason having anything to do with day or night, it cared only about pure time). The fortunate clock-cell however used this happy accident to do its DNA replication at night, when there were fewer UV rays to wreak mayhem, and reserve the day for eating and roaming about. This clock is a very important cellular phenomenon, and perhaps our best image if we want to understand the relationship between the microcosm and the macrocosm.

Yet a reading list is not a book per se. What are the other stones in this stone circle of mine? I don't suppose it counts if I don't go through it too. Mindfulness and the *Mona Lisa* are two. The bridge and the right hand are two more; the garment and *Esperienza* are two more. Calvino and Hofstadter are two more. Does that make eight? Yes. Those could be the eight primary directions: southeast, northwest, northeast, southwest, and so forth. Looking into another level of complexity we can see the two rivers, the neckline embroidery, the slightly off-kilter horizon, the pillar bases and the edge of the balcony, the arm of the chair. The rotation of

the sitter's spine is important. What are the other plot twists? Women are not supposed to turn and look the male visitor in the eye without servility and smile in Renaissance portraiture. This is Leonardo's Beatrice.

Yet I have no degree to make any of this persuasive. It's all on you, the reader. I know this is less than ideal. I am not supposed to just give you a grocery list. That said, I would merely say that the list is a list to myself as much as or more than it is a list to you. I need this list very much too. It is also a list with a continuum of simplicity from high to low; at the simple end you already have everything on it: love of beauty and love of peace. These are the two magic spheres whose orbit gets life out of bed in the morning.

For myself, I haven't read anything close to all the books Calvino recommends in *Six Memos*. I haven't even read *Ulysses* yet – perhaps it is too Joycean for me – though it is at my left hand as I sit here now and a book I have to read by the end of the year as pledged to my long-suffering book club. I haven't read all of *GEB*, much less with full comprehension. My pandemic diversion has been more buying books than reading them, but I have read some.

In some ways this is just a simple account of my reading and writing life during 2018, 2019, and 2020. I bought a copy of Musil's *A Man Without Qualities* but haven't read it. I bought a copy of Adorno's *Prisms* but haven't read it, and bought a book about prisms – *Introduction to Light* – and have read some of it. I bought a compass for fun, fond memory of childhood math classes, and made a Venn diagram of Art, Meditation, and Neuroscience hoping to build a think tank around it. The innermost triangle I called “the aesthetic nexus” and tried

to base it on Applied Category Theory and networks. It was supposed to function like a prism for all information. It may only be a diagram, but it is a diagram!

Partly my hope is to be transparent about what may have prompted me over the last three years to stumble upon an idea which I think might be of value. This idea includes the bridge, the right hand, the garment, the smile, *Esperienza*, meditation, and science. This might be something like a good luck amulet only. It may even be, I accede, merely a fiction or a poem. Yet even if it is only that – a pure figment – what is the harm? People often say “well if it’s not certain I hate it leave me alone.” That’s not how human intelligence is supposed to move. It’s like a conversation and doesn’t depend on perfect accuracy. What conversation cares about perfect accuracy? It’s more about possibilities and a shifting field of probabilities, both flowing and changing into new constellations every day and with every change of seasons. Today it is wintry outside my house; some other day it will be summery.

Robert Frost has a poem about a tree that says “outside my window, it is concerned with outer, I with inner, weather.” Roughly speaking that is the line. Do you get the idea of imagination and how it relates to the universe? This is just my opinion of course. Many will tell you that there is no organic component. I disagree and would suggest strongly that Leonardo does too. He said Nature should always be the master and guide of Art. To me this says, you have choices yes but your choices occur in a universe and that universe has consequences. He expressed this by saying “Necessity is the spirit and guardian of Nature” or something to that effect.

My quotations here in the essays are from memory and approximate. I don't really even want to edit these. Edit them to make myself look super-organized? I'm not. To simplify what I hope to offer by matching to what you already have, and have already bought several times? No thanks. The first Calvino book that started all this was partly about machines that track what kind of writing people buy and then make new versions of that writing for sale, an ouroboros of bestsellers.

Altogether I feel the *Odyssey* is too ancient for my intentions here, and Dante is more to the purpose. Yet not fully Dante, sifted with his mentor and guide Cavalcanti, and not merely Ovid and Lucretius but painting and the Renaissance. I don't know if I mentioned my idea of the present always returning to the past, each day. I think I mentioned remembering where I walked daily. Yesterday I went to the river and meditated for twenty minutes on a cold ledge of limestone, with my boots in the river slightly, at sunset. On the hillside down to the riverbank I stopped to watch the flock of mallards alight just as they did the night before. The marvelous part was how they spiraled to get enough altitude to fly up out of the gorge. My assumption was that they would just follow the current downstream knowing that was how to stay warm. The nice thing about their great loop in formation was that they passed out of sight then emerged back to fly right over my head before gaining escape height. I trudge now at the river with my winter boots on.

Even simpler is just to look at the *Mona Lisa*, and if you have an interest, also look at mindfulness. That's about all there really has to be here. Just one is sufficient, though multiple returns are *necessita* – my apologies that I cannot waive that for you.

Each directional axis can have several attributes or items in its category. These could be persons or officiants who sit at various spots during the solstice, or different officiants on different solstices. They may carry different attributes, like cottonwood, or milkweed, wool or silk, flour or taconite. Maybe Perec is an officiant, or a red-tailed hawk (juvenile), *buteo jamaicensis*. The gray squirrel, or a gust of sand from a carp, or the hind webbed feet of a turtle in a cloud of silt. These may not matter to all. State of the art pandemic facilities on either bank. Today or soon I must walk fully down to the dunes – oh, the dunes, I forget them all too easily, past the waterfall and the sacred overhang of stone, the fire-red and orange flowers, the rope swing, the gentle pollinators, the glowing warmth of waking rest. I may forget to go, or I may not.

Image 20: (11/18/2020)



Web log 21

## The Mindful Mona Lisa: Turbulence and Renormalization

By Max Herman  
Saturday, 10/17/2020



This past week I had occasion to study Ruben's copy of Leonardo's lost war [painting](#) closely for the first time, and noticed its many conflicting, clashing vortices and spirals:

- The two crossing swords at the top
- The two horse heads facing each other, one eye from each
- The shell spiral on the left soldier's shoulder echoing the spiral on his helmet

- The spirals in the right horse's mane
- The two spiral horns of the ram on the left soldier's chest
- The crossing of the two horse's legs in the center
- The right soldier's spiral helmet
- The hands of the left soldier and the center main soldier forming an S shape
- The right soldier grasping both the lance and flag to suggest a “broken” horizon line

This compositional use of knotted, turbulent flows appears often in Leonardo's works: the lamb's foot crossing Mary's foot in the [Virgin and Child with Saint Anne](#); the crossing sash and [geometric](#) embroidery in [Salvator Mundi](#); the crossings and intersections in the *Mona Lisa* such as her neckline [embroidery](#), her [hands and sleeves](#), and the [bridge](#) crossing the river. Intersecting or colliding waves and diagonals also appear in *The Last Supper*, *Madonna of the Yarnwinder*, *Adoration of the Magi*, and *Madonna of the Rocks*.

This pattern of involuted and multi-scale complexity perhaps derived from Leonardo's deep observation of water and biological life. Could he also have applied this pattern to the larger [cosmos](#) and to aspects of the human condition itself?

Leonardo made a number of knot images for his own "academy," the knot ('nodo' in Italian, from the same root as "[node](#)") having philosophical and mathematical meaning in Leonardo's day. Some of these include "[Accademia Leonardi](#)" with the word "Vici" at the center, which means "won" in Latin and is a pun on his surname "Vinci" (which means "win" in Italian, and "worsted," a type of yarn, in Latin).

A recent [article](#) about William Irvine's study of turbulence, vortices, and helicity states: “other researchers had previously suggested that including these geometric characteristics along with links and knots might provide a more general measure of the complexity and ‘twistiness’ of a vortex — one that might even lead to a new conservation law. Irvine pinned down that new law and proved it.... What's more, the vortex can untwist itself, twisting the viscous medium around it as it does so.”

An interesting concept to juxtapose to turbulence and knots is that of renormalization. Charlie Wood writes of early quantum field theory in a recent [article](#) that “Only by using a technique dubbed ‘renormalization,’ which involved carefully concealing infinite quantities, could researchers sidestep bogus predictions.” Wood also describes recent research which has been able to “link renormalization with the idea of scale. It hinted that quantum

physicists had hit on the right answer to the wrong question. Rather than fretting about infinities, they should have focused on connecting tiny with huge.”

Or as Leonardo wrote: "The limiting surface of one thing is the beginning of another."

Next week: Consistency and Resilience

## Essay 21: 11/19/2020

Today is the penultimate day of composition so I was hoping yesterday to happen upon something to achieve a degree of closure or circumference. The balance between openness and conclusion is always something to be considered. There are natural limits to the cycle of encounter and process. One doesn't breathe in for a year, then out for a year, though I for one am the kind of person who experiments with that type of thing. I've left some space though in these essays to go back and add elements after completion of this first draft. For the sake of science I'll try to distinguish these by some kind of typography like typing "here is the added portion" or using italics. The latter sounds proper in a way.

Having learned about Bach's "Little Harmonic Labyrinth" from Chapter IV of *GEB* I often listen to it to start writing these essays. It's an odd song mixing the very cheerful and the haunting. Perhaps this is part of every labyrinth, and every meditation, what is called in Buddhism "pleasant curiosity." It's a very subtle turn but the anger and wrath of hybris cannot always be turned away from all at once especially when it is a torrent. At the river yesterday I was examining a great ledge of limestone from the side and noticed the small chips and granules that had broken off over time but not fallen to the ground. These are a bit like the stone platforms we see in the *Saint Anne* and, less crisply, the *Woman Standing in a Landscape*.

The red-tailed hawk appeared again yesterday but this time it was on the road as I drove to the park, soaring exactly to my left over the edge of the gorge. It was traveling faster than me but parallel so it was a tremendous encounter. I tried speeding up and stopping and pulling over to get the best views and thankfully there was no one else on the road that runs between

the river and the university. There wasn't really enough time to get out my handheld device for a photo and for safety I wanted to concentrate, and for aesthetics to keep my biological eyes engaged. At one point I found a good spot to pull over as the bird was circling on the updrafts where the hospitals form a kind of great row of cliffs. While parked, the red-tail hovered almost still close to directly above me for at least a second or two such that the image of it became what Calvino calls "icastic" or memorable. The sun was out too somewhat which makes everything a marvel. The bird then moved even closer to exactly above me, say a hundred feet up or so. I had to crane my head over the car dashboard and twist my neck completely to see it straight above me, not exactly, but close. This being not perhaps believable I fumbled for my handheld device but removed it too late from its pocket and got only a photo of my windshield and the oil change sticker which had framed the wild bird.

There is an element of "not counting" for birds I see on the road to the river, such as all the wild turkeys which were never here in my childhood, so I was very glad to see the hawk again briefly soaring west along the river after I got to the park and out of my car and was walking on the flat grassy area. There were flocks of geese flying too. I meditated at the river with the sun and looked at many of the fine things again which I have been noticing over the course of these essays. As an item of collection I picked only a sprig of dried vine.

Yesterday I was fortunate to find a quotation from Leonardo's notebooks which has the right balance of conclusion and circumference I think. I stumbled across it while looking in Leonardo's writings for the word "genius," which I sometimes think of as a cloud or atmosphere cycling and circulating amongst all people in somewhat like the multiscale sphere of being which is depicted in the *Mona Lisa* using not a stark bi-diagonal but many mixings and crossing

in recurring orbits. It wasn't a word Leonardo used, not even once, thankfully. Therefore I looked for the word "spirit" which is sometimes used similarly, breath or daily living, or as used so properly by Cavalcanti in the term "*spiritelle*." This second-choice word did appear, and serendipitously in the context of a parable about a moth (as I had been in conversation about a moth image earlier that morning before going to the river):

"Now you see that the hope and the desire of returning home and to one's former state is like the moth to the light, and that the man who with constant longing awaits with joy each new spring time, each new summer, each new month and new year — deeming that the things he longs for are ever too late in coming — does not perceive that he is longing for his own destruction. But this desire is the very quintessence, the spirit of the elements, which finding itself imprisoned with the soul is ever longing to return from the human body to its giver. And you must know that this same longing is that quintessence, inseparable from nature, and that man is the image of the world."

There is a not-staying-put in Ovid and Lucretius which for me helps balance the home-urge of the Odyssey, the urge to fix and restore.

Another fun randomness was opening an article which was sent to me about gut health after finding the Leonardo quote (from which Yeats may have coyly lifted "is but the longing for the grave"). The gut article said that not eating vegetables or having a gut biome can lead to much higher stress in situations of "real or perceived homeostatic threat." Nor do we live by bread alone.

James Austin also told me at the meditation conference that for early Zen practitioners birds were viewed as helpers from the universe for us to look up off of the ground. Not the bird per se, but the bird call. I didn't hear this from the hawk but the geese of course were a welcome chorus as always though their droppings are large and plentiful.

In some ways I wonder if Calvino in *Six Memos* was sending a “musical offering” to Harvard, which had called him for an end-of-life evaluation much as Hofstadter describes Frederick the Great’s call for J.S. Bach to visit the imperial court where his less accomplished son Carl Phillip Emmanuel reigned supreme. Bach the elder was given an impossible musical challenge and subjected somewhat to a humbling draw (or if not humbling something that could be viewed that way or cast as such if one needed or wanted to). J.S. replied by sending a great unfinished task to the Great Frederick. I listen to this every day as I write, or almost every day, understanding virtually nothing of the art of it though I did teach myself a portion of the first dozen or so notes on the piano which came free with my apartment.

The *Musical Offering* and its story opens Hofstadter’s tale in the *GEB*, the introduction, which could well have been in Calvino’s intent when he pointed us to that book in his. At least I was pointed to it by his book. Calvino was writing part undergraduate syllabus and part challenge to the upstart king the United States. We might, by the indirection of art, avert the petrification of the Cold War and technological entombment and by this aversion bring a new birth to the muses and even Pegasus. I used to call the art-age after Postmodernism “networkism,” sadly inventing the term in 2007, but now I – as of yesterday at the river – think we might want to call it Renaissance Two. We ought not, at all, use the decimal version. If you force yourself not to utter it that way something might be different.

If Leonardo knew he was part of a rebirth, might he not have envisioned a second rebirth being necessary for much the same reason as the first, as his? That would be a highly primate way to think and see. Do primates warn each other, I wonder? I can imagine in my

mind's eye just now a gorilla smacking another gorilla's hand who was about to reach into a crevice in a rock to grab some honey – use a stick, there are scorpions there.

Do the United States need to reckon with art and science? Yes. We can play at technocracy and commerce *sans droits* but that is hardly to the purpose is it. Politics and the body politic aside, does an individual US citizen want to live a life engaged with art and science, or perhaps even need to? To me brain health requires it and frankly there can be no avoidance. Our brains make art and make science every single day, no matter what happens and no matter what we do. Your brain creates images and words, and these both improvise and describe. You might as well boycott breathing.

In today's web log (well October 17<sup>th</sup>'s) one can see the image of two horses' legs crossing. This is a kind of collision at the heart of turbulence. When we see objects collide in air we can lose the sense of viscosity that holds the world in its warm embrace. We can fool ourselves with false compartments. In practice this can be acceptable but on deep matters it can lead astray. We don't know what DNA is unless we look to its origin story which could be very different than what we could expect looking at what DNA does now.

The *Battle of Anghiari* reminds one of Leonardo's deluge pictures. These images were of giant catastrophic floods that smashed mountainsides and obliterated cities and forests. It's not fully clear to me what need he was recognizing in these drawings and in his writings on the cataclysmic power of water to destroy. It seems to me a mix of awe, respect, inquiry, and premonition. It is then perhaps also an admonition, to himself as well as others maybe, not

unlike the stormy chords of Mozart's "*A Cenar Teco*" which I listened to last night while painting yet another copy of our fair subject.

In air we think physics happens in a void, like planets orbiting or stones stacking into cathedrals and bridges, but there is actually a quite vast and multifarious fabric of ground, viscosity, and counter-effect. Leonardo was centuries ahead of his time in his theorization of the physics of friction, as perhaps I mentioned. Friction and helicity do seem linked, do they not, especially in phenomena having liquid properties? The spirals you see along a river wall are caused by this.

The *Battle of Anghiari* is in part a celebration of self-defense, by the Florentines against the Milanese, the virtuous lesser against the sometimes oblivious greater. Leonardo did have an awareness of survival by success and the core injustice of his times. He called war the worst of all things. If war is avoidable perhaps the use of renormalization can be part of the alternative. Florentines forgiving Milanese? Milanese finding a different path? Or perhaps war is never avoidable, though this is hard to believe. If the USA can be somewhat more perspicacious, like Benjamin Franklin writer of almanacs, and less oblivious to skill as some of our chosen leaders have been at times, it may be that more opportunities to avert war will appear. There are myriad ways of bringing order after chaos. In calculus we learn to approximate the incalculable and this can save loads of trouble.

Here is the section from Calvino which for me may have prompted everything in these pages:

"His knowledge was without equal in all the world, but his ignorance of Latin and grammar prevented him from communicating in writing with the learned men of his

time. Certainly he thought he could set down much of his science more clearly in drawings than in words. *'O scrittore, con quali lettere scriverai tu con tal perfezione la intera figurazione qual fa qui il disegno?'* (O writer, with what letters can you convey the entire figuration with such perfection as drawing gives us here?), he wrote in his notebooks on anatomy. And not just in science but in philosophy, he was confident he could communicate better by means of painting and drawing. Still he felt an incessant need to write, to use writing to investigate the world in all its polymorphous manifestations and secrets, and also to give shape to his fantasies, emotions, and rancors--as when he inveighs against men of letters, who were only able to repeat what they had read in the books of others, unlike those who were among the *'inventori e interpreti tra la natura e li omini'* (inventors and interpreters between nature and men). He therefore wrote more and more. With the passing of the years, he gave up painting and expressed himself through writing and drawing, as if following the thread of a single discourse in drawings and in words." (pp. 78-79)

"On folio 265 of the Codex Atlanticus, Leonardo begins to jot down evidence to prove a theory of the growth of the earth. After giving examples of buried cities swallowed up by the soil, he goes on to the marine fossils found in the mountains and in particular to certain bones that he supposes must have belonged to an antediluvian sea monster. At this moment his imagination must have been caught by a vision of the immense animal as it was swimming among the waves. At any rate, he turns the page upside down and tries to capture the image of the animal, three times attempting a sentence that will convey all the wonder of the evocation.

*O quante volte fusti tu veduto in fra l'onde del gonfiato e grande oceano, col setoluto e nero dosso, a guisa di montagna e con grave e superbo andamento!*

(O how many times were you seen among the waves of the great swollen ocean, with your black and bristly back, looming like a mountain, and with grave and stately bearing!)

"Then he tries to give more movement to the monster's progress by introducing the verb *volteggiare* (to whirl).

*E spesse volte eri veduto in fra l'onde del gonfiato e grande oceano, e col superbo e grave moto gir volteggiando in fra le marine acque. E con setoluto e nero dosso, a guisa di montagna, quelle vincere e sopraffare!*

(And many times were you seen among the waves of the great swollen ocean, and with stately and grave bearing go swirling in the sea waters. And with your black and bristly back, looming like a mountain, defeating and overwhelming them!)

"But the word *volteggiare* seems to him to have lessened the impression of grandeur and majesty that he wants to evoke. So he chooses the verb *solcare* (to furrow) and

alters the whole construction of the passage, giving it compactness and rhythm with sure literary judgment:

*O quante volte fusti tu veduto in fra l'onde del gonfiato e grande oceano, a guisa di montagna quelle vincere e sopraffare, e col setoluto e nero dosso solcare le marine acqua, e con superbo e grave andamento!*

(O how many times were you seen among the waves of the great swollen ocean, looming like a mountain, defeating and overwhelming them, and with your black and bristly back furrowing the sea waters, and with stately and grave bearing!)

"His pursuit of this apparition, which is presented almost as a symbol of the solemn force of nature, gives us an inkling of how Leonardo's imagination worked. I leave you this image at the very end of my talk so that you may carry it in your memories as long as possible, in all its transparency and its mystery."

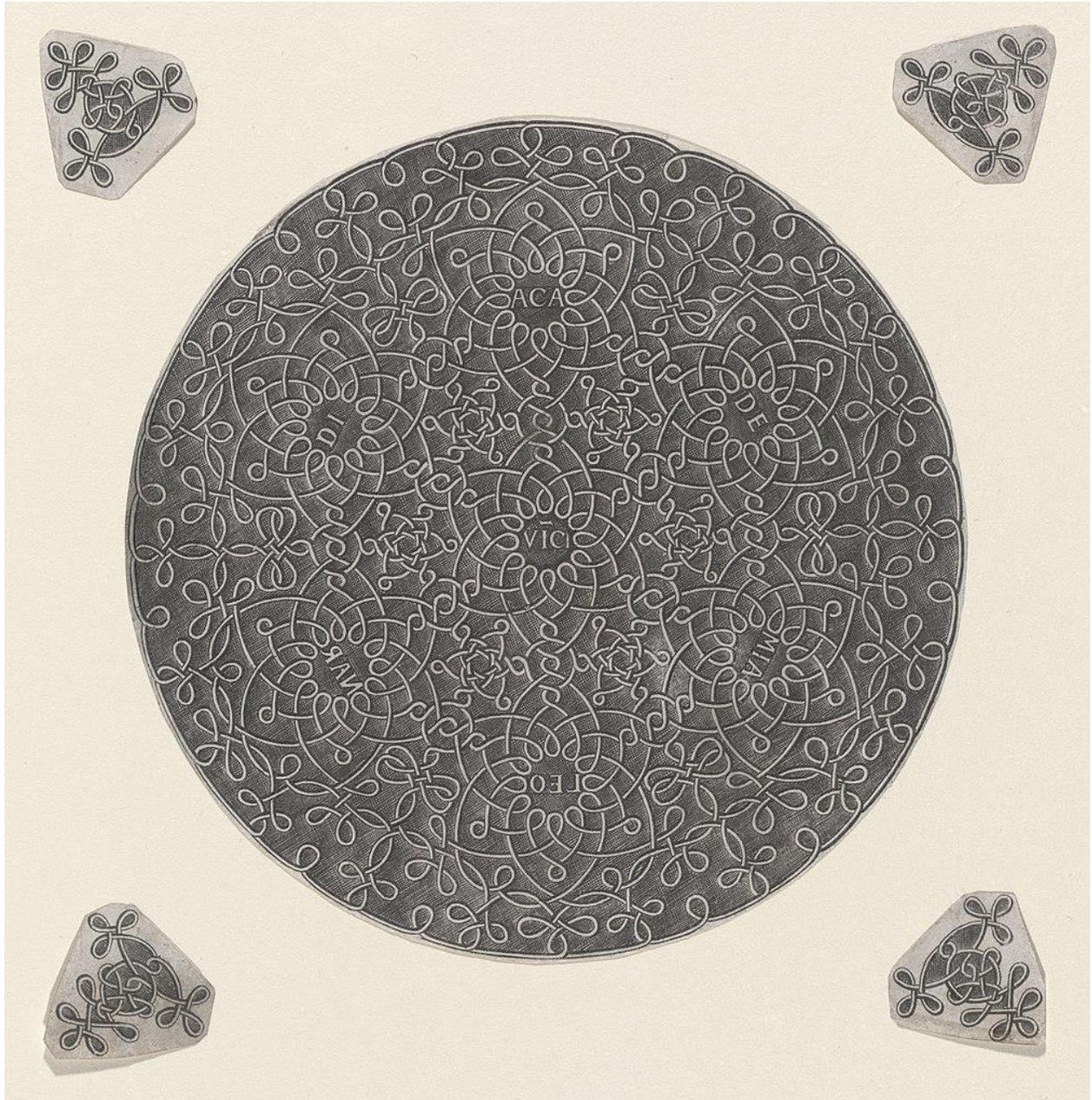
Graphic 21: 11/19/2020



Web log 22

# The Mindful Mona Lisa: Consistency, Chiasmus, and Resilience

By Max Herman  
Thursday, 10/29/2020



Leonardo made a number of knot [images](#) for his own "academy." Many read "Academia Leonardi," with the word "VICI" at the center, which means "won" in Latin and is a pun on his surname "Vinci," which means "win" in Italian and "worsted yarn" in Latin.

The knot images are statements of accomplishment, not just to say "I have founded a school" (which was not literally the case) but also "I have prevailed." His letters and writings are full of questioning whether he can achieve his goals and succeed in both the projects he has undertaken and the greater historical impact of his oeuvre. He was not without uncertainty and tribulation on both counts, but at times clearly felt he had expressed what he wanted to "well enough" and overcome obstacles to create something worthwhile.

In this sense, the knot image represents both [consistency](#), that is, continuous integrity through time, and resilient endurance. Consistency is about having lived up to a standard he set for himself, and resilience means having adapted to and overcome adversarial forces and events. Both virtue and survival, wholeness and history, are symbolized in the complexity and stability of the knot.

By chance this past week I was reading the novel *Less* in which the main character loses a ring. The plot seemed to be structured around numerous "pair" images, echoing Homer's *Odyssey*, with frequent puns and puzzles, so I did an internet search for "meaning of lost ring in literature" to find references beyond those I could recall: [Herodotus'](#) story of the lost ring found inside a fish; Charlemagne's ring as described by Calvino in his essay on "[Quickness](#);" Tolkien of course; and the [Nibelungen](#).

The search however found something I had never heard of before: "[chiasmic structure](#)," also called "ring structure." Although not the type of ring I was searching for, it nonetheless proved to be the very form on which the novel is based!

Its constitutive pattern is called "[chiasmus](#)" or [A-B-B'-A'](#), common in ancient texts like the *Odyssey* and Ovid's *Metamorphoses*, in which the text makes an "x" (or "chi") [shape](#) and "[circles back](#)" to where it began. This pattern was both an aid to the recitation from memory of epic poetry and an aesthetic emphasis on cycle, [crossings](#), and nested recursion in narrative. It can occur at various levels, such as a phrase, sentence, section of text, or the full work itself.

Chiasmus is less associated with visual compositions, but is an [anatomical](#) principle -- Leonardo co-located the *sensus communis*, center

of the human spirit, with the optic chiasm -- and may prove relevant to Leonardo's [work](#) if future investigation can establish consistent patterns (such as hand gestures indicating intersections, bridge-river crossings, bi-diagonal composition, etc.). The sites where chromatids meet and exchange genetic material in meiosis are called "[chiasmata](#)," which can be compared to the diverse paths of ordinary genius by which humans express ourselves in the network neuroscience model of intelligence.

Wherever it may eventually lead, the strange [serendipity](#) of this chance finding seems a fitting metaphor with which to bring to a close the first six months of this [blog](#), and to, in this last installment before the upcoming election, voice my hope that the world will emerge more unified, reconciled, healed, and positive in its course as we set forth anew to face with all the abilities we have the challenges of climate change, Covid-19, and economic inequality.

As Leonardo wrote:

“La necessità è padrona e custode della natura.”

Essay 22: 11/20/2020

One thing Leonardo wrote about that I have found useful and helpful during the pandemic is his advice to draw (or write, I think they are blended behaviors) in the morning when the mind is clear. It's not exactly clarity, perhaps still is the word, but then as it gets activated the impressions are on the newer side because they are emerging for the day. I suppose this has been somewhat of a habit for me from time to time but it was nice to hear him say it. Often I've had a night-owl approach, even though Yeats said "labour is blossoming or dancing where body is not bruised to pleasure soul, nor beauty born out of its own despair, nor blear-eyed wisdom gained from midnight oil. O chestnut tree, great-rooted blossomer, are you the leaf, the blossom, or the bole? O body swayed to music, O brightening glance, how can we tell the dancer from the dance?" Yeats was of course an avid vorticist I think. Not that he should be thought immune to criticism.

The advice by Leonardo to write when feeling that things are new and emerging from stillness has been helpful, as has his equally monumental advice to go back in your mind at the end of the day, even while laying in bed, and review the visual images you had or attended to during the day. It's a bit like re-imagining your steps. He said this visual reimagining was extremely helpful to him, and he wrote it as if surprised by how helpful it was.

Today is the last essay and I wanted to include five elements: page 124, Bartleby, Santillana, the compass, and the hill. I don't refer to notes typically while writing these essays (hence the many "I thinks" which will have to be dealt with in some way such as a section of corrections at the end perhaps listed by page; I like making intentional approximations but

dislike it when I read inaccurate writing, though sometimes the most accurate is also the most inaccurate).

My walk yesterday at the river was good; I saw only two birds – one crow and one goose, both in flight. There were eerie white puffs floating in the river which at first I thought were picturesque snow-ships but turned out, I'm fairly sure, to be foam which is a sign of too much effluvia. It was still beautiful in its way and the river will never be unsalvageable if we are lucky. I meditated in the mild sun by the river and had a very quiet peaceful time walking, the river being a couple of inches lower so I could walk more places, and I also visited the laughing falls whose mighty amphitheater echoes on its way to the river. I noticed that the sussuration of the falls, equerry of its anacolutha, laughs. Of all the thousands who view it every summer I wonder if any have heard that; I never had before.

No one knows what the hill in the Mona Lisa landscape is. It looks like a reddish-brown half-dome to the sitter's left, the color somewhat matching the soil of the plain on the sitter's right. During my own five-minute viewing I thought it might be part of her garment (but it's behind the balcony edge), the roof of a building (but it has no distinguishing marks) or a hillside with lines on it representing agriculture. None of these really fit, so I thought of it as a hill with some kind of striations, not necessarily a human creation but possible. I read yesterday that it is still not known what the "hill" is, and it could be an unfinished section. To me it matters most for its completion of a parabolic shape including the spiral shawl. I wonder if Leonardo considered making it the dome of a church, but that wouldn't have seemed right to me. A hill is better, but it's an odd section of the painting regardless. What do you think it is?

Bartleby was to have been a topic of the Consistency memo, never written by Calvino but only named. I think he represents a kind of negative consistency, which still counts. He can't fix the system, nor can he go anywhere else, but he can abstain. His purpose has been set and marked by his world but he can still say "I prefer not to." This is a semblance of conscience, which has the unique advantage that it can never be annihilated. Bartleby's job was to make copies, copies of legal contracts on Wall Street, by hand in the days of whaling ships and horse carriages before there were copy machines or even typewriters. He copied the contracts by hand, all day every day forever. He became a machine himself, connected to the very building offices or *uffizi* where he worked so that even when his employer moved the business off site, too heartbroken to send the police to get Bartleby, the latter stayed in the building and hovered around it. He had been completely subsumed, but at least he knew it, by God. He had become the equerry of his own anacolutha.

Sometimes that is the best one can do, an active nothing. That is consistency too, and with consistency as Gödel proved comes incompleteness. If you haven't read the final sentence of "Bartleby the Scrivener" by Herman Melville I strongly recommend it, after reading the earlier sentences first of course.

The Santillana I found by chance yesterday. I decided I could play the last essay by ear and go with whatever the final web log prompted or whatever else – even just a list of everything already in the book and anything I may have forgotten, like D.H. Lawrence's poem "the ship of death," or Mary Oliver's poem of wild geese, or Mary Shelley's novel of the machine as man. Those are just randomities though, and not core parts of this year or of the

tryptic 2018-2020. I ought really to try not to bring in materials that haven't been part of this process and project since 2018, not at this stage anyway. But accidents happen.

Apropos of happy accidents, I was tidying my desk a bit (which for the first or second time in my life, the first in a couple of decades probably, has all my books on shelves within arm's and art's reach) and found a book whose title I couldn't read on the spine. I was trying to remove non-relevant books to the triptych from the newer bookshelf on my desk proper, which I'm very fond of, and which holds my paint brushes and face masks too, and while looking in the large bookshelf adjacent for more meaningful and perhaps forgotten works I saw the gray indeterminate spine in the library cellophane cover which was unreadable as the white narrow title was exactly aligned with the white reflection from the shiny clear cover.

I removed the book and saw it was something I'd bought in the last couple of months by Santillana, who I'd read a rather long time ago (portions of a book about Hamlet) and had thought of from time to time, and was very pleasantly surprised to see had been enough of a friend and mentor to Calvino that the latter mentioned the former in the memo on Exactitude in a most admirable and lucid manner. That lucidity but with sardonic, decorous flair is something of the style of both at times. I had never opened the current volume called "Reflections on Ideas and Men" or something like that.

Checking the index as I so often have done this year, much more often than previously due to time constraints, I happily found several pages on Leonardo because I wanted to throw a wrench into my knowledge of the *Mona Lisa* and perhaps be totally proved absurd finally. I had been re-reading the Kemp this week and wanted to change to a different final new reading.

The Leonardo numbers in the index started with “1-19” which is odd I think to see in an index. Of course I realized as I turned to check those pages that the entire first chapter or section must be about Leonardo, and indeed it was “Leonardo da Vinci: Man Without Letters.” The title has its hidden meaning if you can detect it; though the book is from the MIT Press it is an obscure work perhaps and from 1966, actually mentioning the recent sesquicentennial of Leonardo’s birth midway through. I recommend it highly never the less.

I can’t go on and on about the Santillana, could but can’t, but wanted to call out that he quotes the same passage about the moth in full from Leonardo’s notebooks. He translates “home” as “country” however which I take seriously because Santillana is a poetic expert on language (noting very importantly that when Leonardo wrote of articulating ideas in the imagination he meant “draw” or “design” the ideas, not “conceive” as is sometimes translated) and was a friend and colleague of no less an individual than Norbert Wiener of *Golem Inc.* fame. This does cause me to want greatly to be published, this book to be published, by the MIT Press if possible.

The Santillana essay also mentions that Leonardo was obstreperous and spoke with rough cadence at times, perhaps churlishly to some, but that this was primitive in the best sense i.e. a pragmatist “return” to direct experience which connected his prose style by both osmosis and non-osmosis to Democritus and others such as Anaximander and Archimedes (who almost invented calculus two millennia before Newton and Leibniz, but was randomly killed by a corporal during the sack of his city). The essay mentions that Leonardo did not want to found “a” science; that the nature of the universe was that of water; that Leonardo was the antithesis of Platonism but kept his pronouncements proportionate. Kemp notes the importance of the

nude *Mona Lisa*, which is absolutely rough and gritty, in the milieu of the real *Mona Lisa* and its evolution and this could have something to do with the garment as acquired knowledge.

Santillana calls Leonardo the loneliest man in history, the first modern, and the creator of an “aesthetically justified science,” who instinctively knew Newton’s law of inertia but deferred to what the experts of his day said i.e. that momentum is not conserved. So much rigamarole in those days! Santillana calls Leonardo a “captious peasant-artist,” all three scrambling things at will but by *desegno*. The *Mona Lisa* is the map of all this; of everything. Santillana also knew that Leonardo’s notebooks were not “preparatory” for the paintings but the grandest of encyclopedic achievements in themselves. Clearly Calvino had read this same essay, at least it is clear to me that he did; I wonder what year Calvino visited MIT and met Santillana? Was it before the Leonardo essay? The image about earth and water reacting with shock waves in the Leonardo quotation in the Santillana essay is great, as are so many aspects of the essay. I look forward to asking Professor Kemp about it. He makes a great point about the “prophecies” not being so silly after all which I thought too – not literal, but not silly either, much like cockroach wine or the primordial vortex from Iplius or someone.

The compass is also relevant for the sake of simplicity. Western medicine is finally realizing that it needs desperately to understand what meditation is, scientifically in the brain without gaps or voids or non-being but surfaces of adjacent topologies with morphisms over time, and this is called “east” occasionally. I decided yesterday to think of “middle” as the higher on the vertical, and “indigenous” as the south (using I or N since vowels in some cases are too repetitive). This can be a token of remembrance for you if you like but for me it was something I needed.

In keeping with the compositional procedure I can stop now for this first draft of this last essay, or continue on from what is at least the half-way point. Later ideas can be added in italics which is a way to prevent overdoing it. I would venture that Leonardo had a great “negative capability” as Keats put it. Perhaps Camus would have said “lucid awareness of the absurd.” I had forgotten just now an important idea from the Santillana that Leonardo’s time was half materialist and half Platonist, while Leonardo was neither. Machiavelli was also a friend and ally of Leonardo, which to me reflects better on Leonardo than on Machiavelli, or better on Machiavelli than Leonardo; they worked together on the absurdity of building a canal to bypass Pisa, an absurdity none the less worth attempting. I drew a picture of myself once in a landscape with a bridge going into my collar, not three-quarters though. I like it but it’s not for this compendium.

I’m sure that I misunderstand Machiavelli, who Santillana calls a social scientist before there were the social sciences. Perhaps it is not that Machiavelli says there is no Good, but just that Good is not all there is. Leonardo has a similar observation that there are no empty spaces, and this is both the newest science of today and the oldest cosmology of the primordial turtle and sea of the universe. I want to read some Democritus now. I like how Santillana takes Voltaire and Buffon to task for mocking someone who helped Leonardo, as Copernicus was helped by just a phrase of someone, and Leonardo by a mocked and derided phrase about geology in Ovid. The largest Folio can be nonsense – trash – aside from one phrase which is an accident. He also notes that Leonardo takes Epicurus and Pythagoras both to task. I learned from Kemp that the sleeves of the *Mona Lisa* are of a cloth called “*leonata*” or something like that.

There must be structures, habits, and domiciles that I want to hide in, to which the elements my corpus is made of wish to return as by gravity. It's somewhat up to me how fast this happens, and how. Leonardo had interesting ideas about the intestines removing death from the body, death being entropy let's say. This is a smart insight into membrane theory, which is a place where strings need to go to get right with living tissues like the universe. What is it that I ought to track to if I want the better rather than the worse, knowing that "the conflict between right and wrong is the sickness of the mind"? It is something like what I'm doing now and what is happening now, which might be a triangle even though my latest article says that matter decays in cubes. I suppose protein folding and cognitive reappraisal are triangular so to speak, and joints are definitely not cubes. I used to see rotating axes, large or in an array, in TV static and I sometimes still can see it on the inside of my eyelids. They go left to right, and clockwise, and sometimes collapse and recombine like clock hands.

I kept to my walking, drawing, and meditating daily for this rough draft plus a few other mnemonic devices. This was nothing out of the ordinary at all – with our health we can always go for a walk, have a conversation, read, write, or draw – so it wasn't difficult but actually a kind of relief.

One way things are sometimes phrased is that if we can be OK with things not being OK there is a possibility of better times.

Or as Calvino put it,

"But perhaps the answer that stands closest to my heart is something else: Think what it would be to have a work conceived from outside the *self*, a work that would let us escape the limited perspective of the individual ego, not only to enter into selves like our own but to give speech to that which has no language, to the bird perching on the

edge of the gutter, to the tree in spring and the tree in fall, to stone, to cement, to plastic..... Was this not perhaps what Ovid was aiming at, when he wrote about the continuity of forms? And what Lucretius was aiming at when he identified himself with that nature common to each and every thing?"

Graphic 22: 11/20/2020



## Epilogue

About a month after finishing the twenty-two chapters of this book, having Machiavelli somewhat on my mind, I happened to read an article by Perry Anderson called “The European Coup” in the *London Review of Books*. It discusses an “aesthetic” view of politics, held by Van Middelaar in *Passage to Europe*, illustrated by Machiavelli’s metaphor of history as a river called Fortuna (Fortune) which can be shaped and woven by canals, dams, and other works through the process of politics.

This metaphor struck me as quite similar in form, though quite different in spirit, to the bridge/garment metaphor I propose in this book. Researching further I found that Leonardo and Machiavelli both worked for Cesare Borgia, a likely pattern for *The Prince*, in 1502. They also collaborated on a massive engineering project to redirect the Arno in 1503 (the same year Leonardo started work on the *Mona Lisa*). It occurred to me that Leonardo, who detested lies and war, may have meant his masterpiece to contest with modern nihilism on behalf of the vision of artistic and intellectual virtue expressed by Dante’s depiction of Beatrice and modernized by Leonardo. Put another way, Leonardo set his own image of reverence for *Esperienza* as a river in direct contrast to Machiavelli’s credo of forcible compulsion of Fortuna.

I now firmly believe that Canto VII.67-96 of the *Inferno* provides ample textual basis for this line of thinking. Leonardo also wrote “I will put the *Commedia* directly in front of you.”

(Dante's political alliances with the Gherardini family could possibly also pertain.) In any event, if shown to be true this hypothesis will add a political and social justice dimension to the philosophy expressed by Leonardo's "universal painting" and would place him among the chief exponents of modern democracy. This is the topic of my next book, due out in 2022.

#### Appendix A: Quotations from Leonardo

[https://en.wikiquote.org/wiki/Leonardo\\_da\\_Vinci](https://en.wikiquote.org/wiki/Leonardo_da_Vinci)

#### Appendix B: Quotations from Dante

[https://en.wikiquote.org/wiki/Dante\\_Alighieri](https://en.wikiquote.org/wiki/Dante_Alighieri)

#### Appendix C: Other quotations

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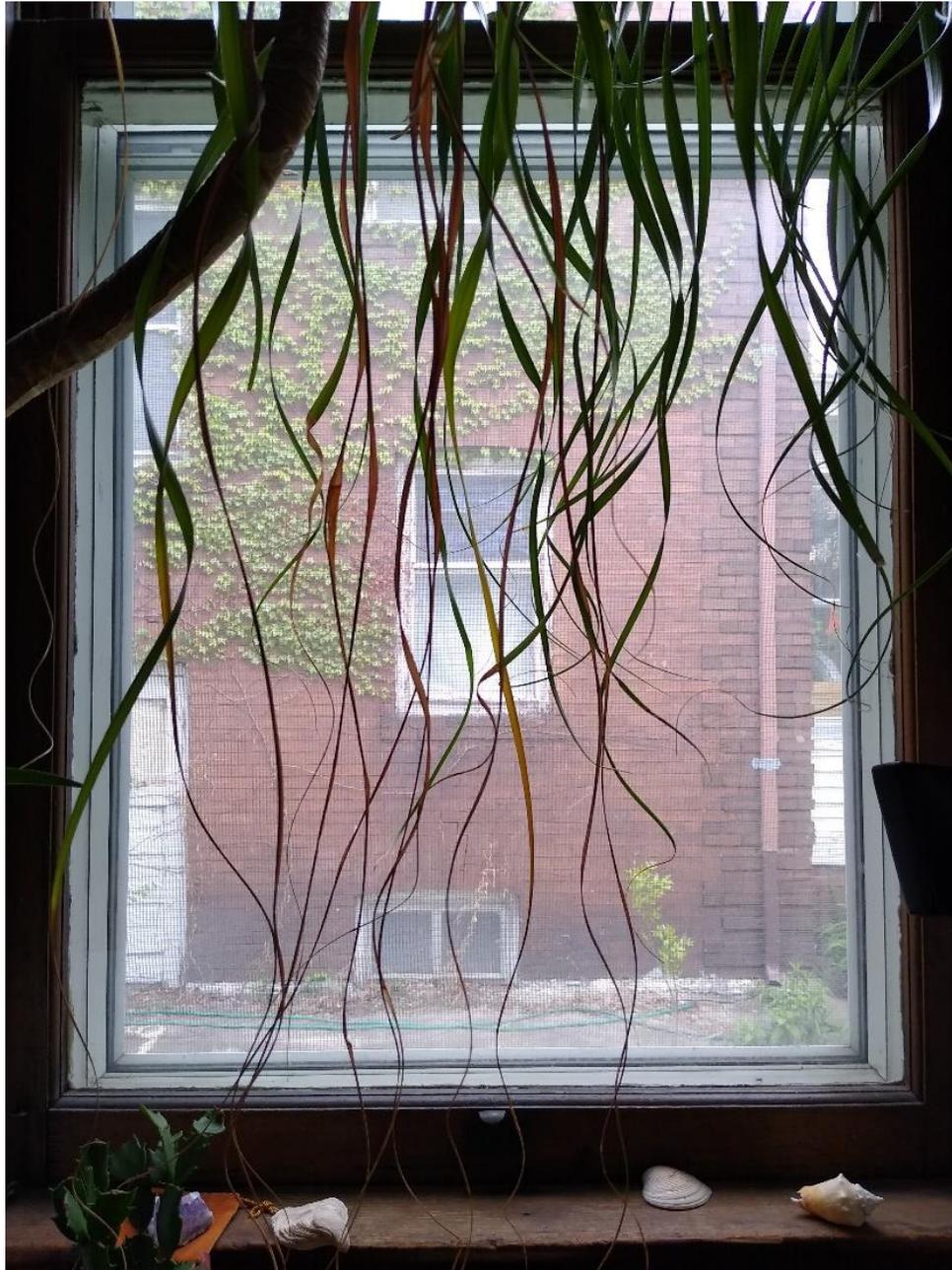
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# Experience and Fortune's Garment

The Dante of Leonardo



By Max Herman

per Emilia, mio padre, e le due città

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[blog address]

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[Apologies for typos and omissions in PDF draft 11/1/2022 – MH]

## Foreword

(Written all in a row, not like first book based on web logs of 2020. Walks by river often but not every day. Based on web logs of 2021 at [blog address]. Original plan was to discuss both Dante and Machiavelli, but it became clear right away Dante's influence on Leonardo would require full focus and the latter would be discussed in a separate third book. Most sources I read or found for the first time during composition, such as Valery, Harrisons, much of Dickinson, Vitowsz, etc.)

Remind readers to do StB first, before reading the book. ([seethebridge.org](http://seethebridge.org))

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Web log 1

# The Mindful Mona Lisa: Leonardo, Machiavelli, and Poetics

By Max Herman  
Friday, 01/08/2021



Leonardo worked [closely](#) with the famous philosopher of politics, [Machiavelli](#), on the massive engineering project to divert the Arno river. Machiavelli wrote that politics could be seen as a related metaphor: the flow of events is a river, called “Fortuna” or [fortune](#), which could be shaped by conscious effort into canals, “woven” into the fabric of cities and commerce.

Each person’s own life was also woven [metaphorically](#): “I assert once again as a truth to which history as a whole bears witness that men may second their fortune, but cannot oppose it; that *they may weave its warp, but cannot break it*” (italics mine).

Machiavelli also used the metaphor of learning and books as a garment:

“When evening comes, I return home and enter my study; on the threshold I take off my workday clothes, covered with mud and dirt, and put on the garments of court and palace. Fitted out appropriately, I step inside the venerable courts of the ancients, where.... where I am unashamed to converse with them and to question them about the motives for their actions, and they, out of their human kindness, answer me.”

Leonardo worked with Machiavelli on the river diversion [project](#) in 1503, at the same time that he began work on the *Mona Lisa*.

The shaping or weaving of a greater flow into a web or fabric of lesser streams having greater complexity is fundamental to biology, all studies of branching, and much more. Machiavelli applied this quite natural metaphor to his philosophy of politics; Leonardo could certainly have [applied](#) it to the history of art, inclusive of science and engineering.

Some of Machiavelli’s thoughts on Fortuna are notoriously repugnant: “it is better to be rash than timid, for Fortune is a woman, and the man who wants to hold her down must beat and bully her. We see that she yields more often to men of this stripe than to those who come coldly toward her.”

This is antithetical to the dignity that Leonardo afforded to the concept of [Experience](#), which he personified as spiritual guide, equal, and teacher, much like Dante’s Beatrice:

“Though I may not, like them, be able to quote other authors, I shall rely on that which is much greater and more worthy — on experience, the mistress of their Masters. They go about puffed up and pompous, [dressed](#) and decorated with [the fruits], not of their own labours, but of those of others. And they will not allow me my own.”

[Leonardo](#), a recognized expert on Dante in his day, may well have been thinking of his city’s great poet when he compared their respective arts:

“Painting is poetry which is seen and not heard, and poetry is a painting which is heard but not seen. These two arts, you may call them both either poetry or painting, have here interchanged the senses by which they penetrate to the intellect.”

Given Leonardo’s low opinion of war we might see this hypothetical joust between Machiavelli and Leonardo, *The Prince* and the *Mona Lisa*, as a contretemps between politics, the art of the possible, and poetics, the possible of art. Perhaps the

Machiavellian leaders of our own day will find a more than worthy adversary in Leonardo.

Next blog: Garment and Metaphor

## Essay 1

This book is about Dante, and the influence of his poetry on Leonardo. It is also about Machiavelli--the youngest of all three--and Dante's influence on Leonardo's influence on Machiavelli, as well as on Machiavelli's influence on Leonardo.

Martin Kemp writes in his 2017 book *Mona Lisa: the People and the Painting* that no one has yet done a "full study" of poetry's influence on Leonardo. I cannot say if this statement is true, with any certainty, nor can I claim any ability or skill to do such a full study myself. However, I can most certainly do the fullest possible study of which I am capable in skill and ability. This will performe be rather haphazard, convoluted, full of fits and starts, and above all a jumble of unpredicted and disorganized elements.

I will focus on Dante. Most of what I know about Dante will be learned by me as I write the book, as I currently know virtually nothing. Still, as I have learned just from the first few Cantos of the *Inferno*, to doubt one's ability is not to be admired. Furthermore, in Canto VII of the *Inferno*, lines 67-96, I see a very fine portrait of the *Mona Lisa*, and if my bridge-garment-experience hypothesis is correct then it would be virtually impossible for Dante's portrait of Fortune not to have been in Leonardo's thoughts. Therefore I will take the risk and continue the journey.

Here is John Ciardi's translation of *Inferno* VII.91-96, in which Dante describes the ancient Roman deity Fortuna:

And this is she so railed at and reviled  
 that even her debtors in the joys of time  
 blaspheme her name. Their oaths are bitter and wild,  
  
 but she in her beatitude does not hear.  
 Among the Primal Beings of God's joy  
 she breathes her blessedness and wheels her sphere.

The “beatitude” and serene stability clearly resemble that we see in the *Mona Lisa*. This is not coincidence. Dante created the largest, most accurate, and comprehensive encyclopedia of all knowledge from his day. His medium was words. Leonardo sought to produce a similar compendium of all knowledge, two hundred years later, with his own changes and evolutions but with respect and regard for his predecessor. Leonardo certainly used visual images, but also words. The correlations and parallels are to be honest stupendous once one begins to look.

Here are two relevant quotations from Leonardo:

“Experience never errs; it is only your judgments that err by promising themselves effects such as are not caused by your experiments.”

Leonardo then rephrases and expands the above, with a clear personification of experience:

“Experience does not err; only your judgments err by expecting from her what is not in her power. Men wrongly complain of Experience; with great abuse they accuse her of leading them astray but they set Experience aside, turning from it with complaints as to our ignorance causing us to be carried away by vain and foolish desires to promise ourselves, in her name, things that are not in her power; saying that she is fallacious. Men are unjust in complaining of innocent Experience, constantly accusing her of error and of false evidence.”

This is just one example where Leonardo’s writing acts as a reply to a theme or concept in Dante. There are many, many more, in fact enough that we must take it as a genuine possibility that Leonardo meant to literally fulfill the below challenge of equaling Poetry with Painting.

Leonardo wrote:

"If you [the poet] would say: but I describe for you the Inferno, or Paradise, or other delights or terrors, the painter can beat you at your own game, because he will put it directly in front of you."

Dante had written:

*Paradiso* XXXIII.137-138: "I yearned to know just how our image merges / into that circle, and how it there finds place; / but mine were not the wings for such a flight."

*Inferno* IX.58-60: "Men of sound intellect and probity, / weigh with good understanding what lies hidden / behind the veil of my strange allegory!"

*Inferno* X.130-132, on Beatrice: "when finally you stand before the ray / of that Sweet Lady whose bright eye sees all, / from her you will learn the turnings of your way."

Could the ML be making a subtle reference to the *Inferno* (left background, with Styx or Acheron), *Purgatorio* (right background, with Lethe), and *Paradiso* (the sitter, as Beatrice/Fortuna/Esperienza)?

+++

Leonardo wrote:

"[P]ainting is born of nature — or, to speak more correctly, we will say it is the grandchild of nature; for all visible things are produced by nature, and these her children have given birth to painting. Hence we may justly call it the grandchild of nature and related to God."

Dante had written:

*Inferno* XI.103-105: "Art strives after [Nature] by imitation, / as the disciple imitates the master; / Art, as it were, is the Grandchild of Creation."

+++

Beatrice in fact directly praises *Esperienza* to Dante later in the *Paradiso*:

"From this instance [of error] (if you will do your part) / you may escape by experiment (that being / the spring that feeds the rivers of man's art)" (*Paradiso* II.94-96).

Here is the Italian, from which "*esperienza*" is translated as "experiment":

94 Da questa istanza può deliberarti  
 95 esperienza, se già mai la provi,  
 96 ch'esser suol fonte ai rivi di vostr' arti.

+++

As I continue investigating the bridge/garment/experience hypothesis in the context of Dante's influence on Leonardo, the great remaining puzzle piece is of course to find some example of a bridge being used as a metaphor. I haven't found that yet in Dante or Machiavelli in any way that feels conclusive. Dante mentions the Ponte Vecchio in Florence, how it was dedicated to Mars in Roman times then rededicated to John the Baptist when the city converted. There are plenty of crossings of rivers in the *Commedia* but they are all by boat, or swimming, or walking on the water. There are bridges of a sort over the many trenches in the *Inferno* in which the fallen souls are corralled for punishment, but those bridges don't seem to match the one in the ML.

If I don't find any better corroboration of what "bridge" might have meant to Leonardo, I am content to have it mean just a metaphor of his own creation. After all, he had to hide from the censors all his life and if the keystone of his necessary camouflage was obvious well that would have been unprofessional. Something unobtrusive hiding in plain sight would be far more logical. I do see a poetic logic to the metaphor in that bridges cross rivers, they do not oppose them. In this sense, a "bridge" of art and science would intertwine with the river of Fortuna creating a strand and hence a fabric.

Alas, just as I lack a degree in art history I am just now studying Dante for the first time, previously knowing only fragments and general outlines. There will be mistaken conclusions that I draw, and almost certainly grave omissions. I will read as much as I can throughout 2021 to ameliorate such inaccuracy, and will continue the blog at [blog address]. Calvino discusses Dante in depth in *Six Memos*,

as I touched on in *The Mindful Mona Lisa* (of which this volume is the necessary next phase), so I will rely on his guidance and erudition where I can. Yet still, much will consist here of conjecture and poetic license albeit with as many references in the bibliography as possible.

One difference in this book is that the chapters are fewer and longer. My hope is that this will allow each essay to be more exhaustive and comprehensive, and to potentially make greater use of a planned structure.

What then ought to be covered in this chapter? Well, the explanation of how this book arose ought to be made clear, i.e., how I read Perry Anderson's article in the LRB about the EU in December of last year, which alluded to Machiavelli's metaphor of Fortune as a river that is "woven" into canals, channels, dams, and the like into useful forms by the process of politics. This struck me as similar in metaphoric form to the bridge/garment dynamic in the *Mona Lisa*, in which the bridge represents the flow of the history of art, science, and engineering (i.e. technology) since prehistory up to the present day, and the garment represents the latter's weaving into the state of the human arts today. The geometry or diagram of the metaphors, so to speak, are congruent. However, Machiavelli's repellent allusion to forcible subjugation of Fortuna in his advice to princes struck me as antithetical to the reverence and equality Leonardo shows for *Esperienza* (who both creates and wears the garment of human artifice). Leonardo's portrayal of *Esperienza* seemed much more aligned with Dante's respect for Beatrice as teacher and guide.

Therefore I resolved to read both Dante and Machiavelli in order to find out if there were any demonstrable influences on Leonardo's work, and if so, of the sort that could corroborate the bridge/garment/experience hypothesis. It only took seven Cantos of the *Inferno* to establish that Dante's representation of Fortuna, the deity of chance and change, was fundamentally important. The

rest of this book will try to elaborate as many as possible of these close linkages and the fabric of meaning they create.

Some parallels will be speculative, some less so. However, it will be clear that I do not take the view that Dante was a minor or incidental influence on Leonardo. On the contrary, I will attempt to show that Leonardo produced nothing less than a systematic and comprehensive reply to Dante's work in all disciplines – literature, visual imagination, science, ethics, and much more. Leonardo is not, of course, merely “illustrating” the *Commedia* as the fabulous works of Doré. His reply is more like that of Einstein to Newton, agreeing where proper and adding, removing, or adapting when needed, to use a scientific example; the parallel in literature could be Dante's work as a reply to Virgil, or in painting Raphael's response to Leonardo.

As with *The Mindful Mona Lisa*, I face the terrible prospect of writing a book which is intended to have major impact on our understanding of Leonardo while lacking an academic credential, much less a career background, in the subject whose impact I am proposing to describe. Therefore this must all be taken as a hypothesis, presented by a generalist and an amateur one at that. My degrees are in literature, and neither is terminal (though I did score an 800 on the GRE Subject Test in English about three decades ago). I cannot even begin to promise a full scholarly discourse on Dante, all the scholarship on Dante and Leonardo, and all the scholarship on Leonardo. I will however promise to make my very best effort to learn about Dante as I write this book and draw as valid comparisons as possible to the work of Leonardo.

It should also be said that Dante's influence on Leonardo is often said to be minor. I cannot understand how this could ever be thought by anyone who has read both Dante's *Commedia* and Leonardo's notebooks, and viewed Leonardo's paintings. The influence is more easily seen as overwhelming, or even derivative emulation (which it is not), than minor or limited. Why would the

comparisons not be fully explored? It is certainly possible that due to theological topics, on which Leonardo did not feel at liberty to speak freely and publicly, he couched his replies to Dante in allegory and subtle reference rather than the overt attribution and citation which was so studiously practiced by the academics of his day. Just as Leonardo avoided the styles and methods of Florentine literati on procedural grounds – stating that those who cite others in an argument use memory rather than intellect – he avoided them also on grounds of self-preservation, to avoid the censors, and time management, to steer clear of the endless bickering, gossip, and poetastry of the time.

Therefore in Leonardo's notebooks we see a few passages from Dante copied verbatim, but nothing resembling a point-by-point guide to where an image or passage of text is responding to Dante. (Although, writing that the painter will put the *Commedia* in front of your eyes must be viewed as the isolated outburst shouting "open your eyes, reader!" that substitutes the overarching for the particular.)

A very important factor in understanding what Leonardo meant or might have meant in any given image or writing, what he concealed or implied between the lines, is how he believed that his work would be used. Of course he had an elite audience for works such as *The Last Supper*; he knew he was renowned and would likely remain so indefinitely; he knew he had some protection from the censor and the inquisitor. He also knew, and wrote most explicitly, that he cannot write everything he thinks about certain topics (such as, at the time, "the sun does not move," a sentiment prosecuted severely even when voiced a hundred years later by Galileo). In a sense, he had two long-term media in which to work: his corpus of revered paintings, universally acknowledged to be of the first quality, and his thousands of pages of notebooks. The latter were most definitely not public, nor were they particularly revered. The context was more private, and hence more free, but anything written in them could have been reported out by spies at any moment to the least forgiving of enemies. Leonardo had reasonable hope that they would be preserved, however, and even studied by later scientists and artists. These two media, or audiences, thus formed two levels in Leonardo's method.

Another interesting question is Leonardo's use of pointing hand gestures. There are many clear-cut examples where a figure is pointing at something, but sometimes what they are pointing at isn't obvious. Is the *Mona Lisa* pointing to the fabric of her sleeve in order to indicate it is of thematic importance? There is a similar gesture in the portrait of Isabella D'Este.

### **The Key to the Bridge**

Though I would love to plot this book out in a wonderfully pleasing form, such as a square with one triangle at each corner, or a rose in bloom, or a beginning middle and end which flows as smoothly as a song, I don't know if I will be capable. So far the best I can do is organize it into chapters, one for each blog. Since the chapters have to be longer than my previous book, there being many fewer, I have to write in multiple sittings. The essays cannot be organized as closely around my walks by the river, though I do pledge and vow to walk by the river or some other forested area once each day until this book is done. I was at the river yesterday and it is melting on the edges, but still frozen all the way across. There was a fantastic creek flowing over the flat sand area by the cottonwoods, from all the snowmelt on the field above, which carved out a miniature river and delta. I didn't have my handheld computer so might go take a picture of it today; in all rightfulness I should draw it.

To the essence of this section, which will end this chapter finally (as I am grievously behind on my schedule of producing this chapter): the key to understanding the bridge is the relationship between two drawings, one by Leonardo 1517-1518 and the other by Botticelli in 1495.

These are called, respectively, *Woman Standing in a Landscape* and *Purgatorio XXVIII*. Leonardo's drawing is one of the last major compositions he made before his death in 1519. It shows a woman standing next to a stream, looking directly at the viewer on the other side, and pointing

backward and to the right. Her hair and robes are flowing as if in a breeze, and she is smiling. This drawing is not titled, nor does Leonardo explain its subject or meaning in any way in his notebooks.

The drawing is sometimes compared to Botticelli's much earlier illustration of Dante's *Purgatorio* XXVIII, which shows Matilda and Dante facing each other on either side of the river Lethe. Similar elements to Leonardo's drawing include the stream, the woman's posture, dress, and hair, and her pointing gesture (which is, however, upward rather than to the right).

The main difference of course, which to my hypothesis is by far the key and most important, is that Leonardo's drawing depicts a bridge over the stream (in the distant horizon near the woman's left foot) and Botticelli's drawing has no bridge (since there is no bridge over Lethe in the *Purgatorio* XXVIII). What has Leonardo done? He added a bridge to Botticelli's composition; he placed the viewer in Dante's perspective (the artist's); and he changed the woman's gesture to point to the bridge. This, to me, despite not being a Leonardo expert, seems completely plausible if not certain. I find any other explanation to be much less probable. Do we really think Leonardo would make such changes with no reason, no design, as if he were merely doodling to pass an afternoon? Nothing in his work or method would lend credence to such a theory.

Why would Leonardo add a bridge to *Purgatorio* XXVIII in one of his last compositions? In part it seems like a will and testament, farewell, and even elegy. The emotional content here is tremendous if we see *Esperienza* showing the way for us to journey to where Leonardo will soon be. It is as if Leonardo is saying farewell to his own life gratefully and with tremendous peace as well as hope. Yet from a design perspective, which in Leonardo's case includes design from every discipline (including theatrical design and music), it is unmistakably a guide. It says, "the bridge is important, despite being in the distance."

Infrared imaging shows beyond any possible doubt that the bridge was the very last element added to the *Mona Lisa*, later even than the embroidered details of the neckline. Why would Leonardo add such a detail at the very last moment, and what is more, to paint over a rocky outcrop with an almost identical shape and color? An artist or writer would never make such a change without a reason. Was it to balance the composition? Correct a flaw? These are difficult to justify. The only plausible explanations are thematic or symbolic – a small gray rocky outcrop was replaced by a small gray bridge.

Most Leonardo scholarship, virtually all really (with the exceptions of Zwijnenberg and Starnazzi) has declared for over five hundred years that the bridge has no meaning. Given what we now know about Botticelli's *Purgatorio* XXVIII and the late addition of the bridge this meaninglessness seems very unlikely. If the bridge must therefore mean something, what can that be?

I am just an amateur when it comes to studying Leonardo and Dante. I'm still finishing my first full reading of the *Commedia* as I write this chapter, so this book is more like a research notebook in some ways than a finished product. But that is perhaps OK. In any case, all I really wish to establish is that the bridge in the *Mona Lisa* is important. It isn't nothing. It isn't a random meaningless blob of gray paint. Responsible scholarship and study must accept that the bridge means something. The question is what? There may be many explanations I haven't thought of. I have found some possible meanings and am trying to put them out there for considerations. What I object to somewhat is the idea that the burden of proof should be on those who propose that the bridge probably means something and should therefore be discussed. I would argue that the burden of proof is rather on those who claim that the bridge cannot and does not mean anything, and should not be discussed. Many will disagree, since no one has ever proposed before that the bridge be studied, and virtually everyone is invested, in so far as they are invested in Leonardo studies at all, in the premise that the bridge does not warrant study. I respect their views and simply wish to propose a different view.

Yesterday I mentioned the idea in conversation that I had found some evidence that Leonardo's work, including the *Mona Lisa*, might be referencing Dante. At first this person said "well we shouldn't try to narrow down the meaning of the *Mona Lisa* to something specific; it refers to many things and we should not be reductive." I said, "I agree of course, but Leonardo wrote in his notebooks 'the poet says he can describe the Inferno and Paradise to you, but the painter can beat him at his own game and put them right in front of you.' That seems rather suggestive." The person I was talking to said "yes that seems like an indicator." Then I described the comparison between *Woman Standing in a Landscape* and Botticelli's *Purgatorio XXVIII*, and the person I was talking to said "yes that makes sense too; Leonardo was adding something to the context of the Dante reference."

I asked another non-expert yesterday if they saw a bridge in the *Woman Standing in a Landscape* drawing, and they said they definitely did. Therefore I find the following text from the Royal Collection Trust web page that displays the drawing to be possibly worth reassessment:

"The fluttering drapery here echoes that of Matelda in Botticelli's illustration of the same scene (Berlin, Kupferstichkabinett), though the distinctive pose is derived from a figure in one of Mantegna's canvases of the Triumph of Caesar, the *Bearers of Trophies and Bullion* (c.1484–92; Royal Collection, RCIN 403960), perhaps known to Leonardo via a print. The pointing gesture and direct gaze relate the drawing to Leonardo's compositions of the *Angel of the Annunciation* (RCIN 912328) and *St John the Baptist* (Paris, Louvre), and would put us here in the position of Dante, as Matelda indicates her earthly paradise to us. But Leonardo had, it seems, little sustained interest in Dante, and most quotations from the *Divine Comedy* in his notebooks are on natural phenomena; though the background here is hard to read it seems rocky, and we know from the Leda that Leonardo would not miss an opportunity to illustrate a flowery setting (eg. RCIN 912424). The context and function of the drawing thus remain unknown."

### **An Imaginative Journey**

These matters of which I write are not susceptible to proofs like  $2+2=4$ . Perhaps even that cannot be proven. We know the earth orbits the sun, and not vice versa; we can prove this. Still, many do not believe it.

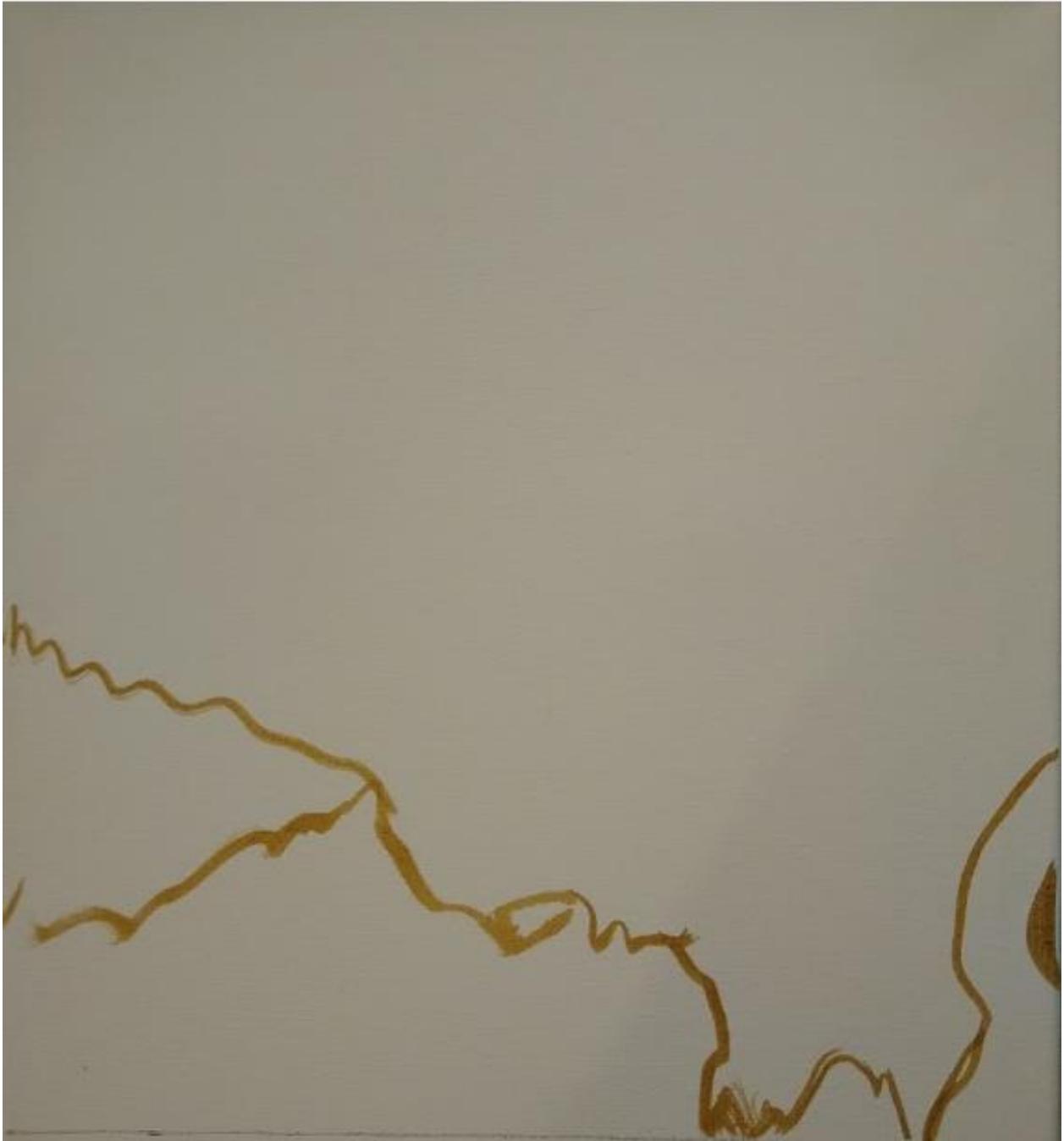
If you define proof that the bridges in the *Mona Lisa* and *Woman Standing in a Landscape* have meaning as a written text in Leonardo's hand stating "I mean the bridge in my portrait of a lady and recent drawing to be a great metaphor and keystone of my legacy" then we may not find such proof. Maybe some would consider a less journalistic fragment, such as "my bridges have a purpose I leave to you to find, O future traveler!" persuasive, but alas I have not found such a text yet either. A brief Latin phrase such as "*pontem veste textit*"? We all have our own standards. My sense of Leonardo's method is that he wanted to make his meanings subtle, because they represented change in a time of great risk to artists and scientists; he did not wish to make them invisible. We should not look for blatant labeling of that which Leonardo most specifically wrote "I cannot speak of this in detail because it is forbidden." Such detail, if we hope to find it, should be looked for in subtle and discreet expressions. Does anyone truly wish to suggest Leonardo did not and could not imagine or design with subtlety?

In the Zen tradition, as with many others, direct experience is distinguished from theoretical exposition and logical or evidentiary proof. Many Zen questions are not meant to be answered; they are meant to be worked on over an extended time in which the experience of the work itself is the benefit and not the answer or solution. One must go on the jog, one cannot merely analyze jogging or watch a video of a jog. The same goes for sitting zazen, or breath meditation. There is no "reason" or "purpose" for doing it outside of the doing. The experience is non-transferable. There's no "special way of breathing" that is necessary. The benefit and meaning is from the experience and not from any extricable data gained thereby. To think the meaning can be extricated is the ultimate error.

Leonardo's philosophy of *Esperienza* is very like this attribute of Zen. Analyzing and discussing science is less important than doing experiments, and artistic experience is more important than theory and argument. Some may accuse me of hypocrisy here, but I feel comfortable that my messages are resilient to such critique even if I sometimes drift or ramble. Leonardo knew that *Esperienza* cannot be reduced into some kind of equivalent which can replace it – there is no replacement. Can you replace one of your heartbeats with a video recording of it, and say it can replace it? Can you replace a synaptic firing of a neuron in your visual cortex with an fMRI of that firing? Certainly not.

To understand what Leonardo meant by *Esperienza* he knew that we had to experience it for ourselves. This is why he placed us in Dante's shoes on the Purgatorio side of Lethe, and told us which direction to walk.

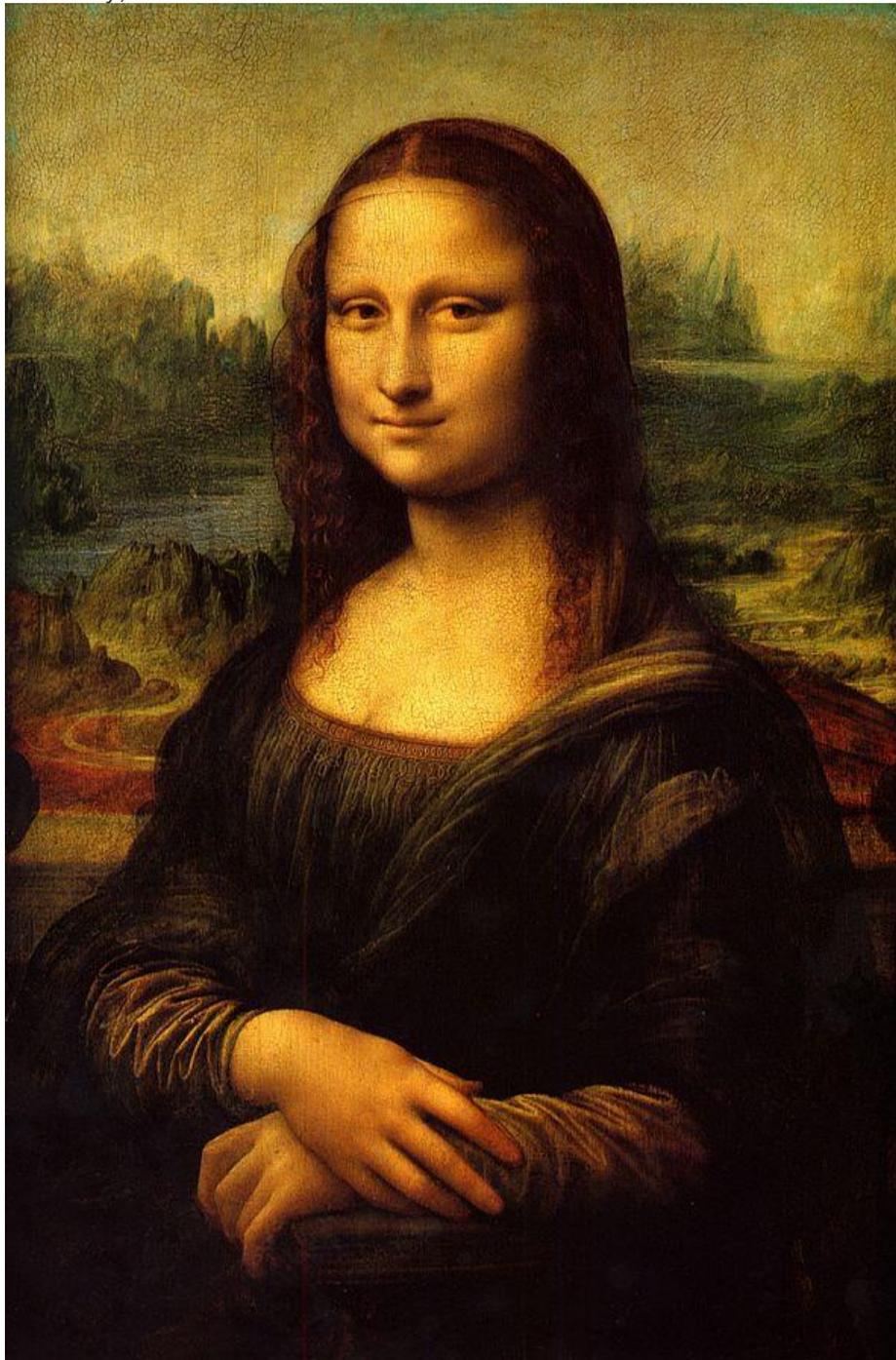
Graphic 1



Web log 2

# The Mindful Mona Lisa: Fortune's Garment in Dante and Machiavelli

By Max Herman  
Thursday, 02/04/2021



Leonardo expert Martin Kemp of Oxford University wrote in his 2017 [book](#) *Mona Lisa: the People and the Painting* that "A full study of Leonardo and poetry would be highly rewarding -- and very demanding" (p.143).

While searching the *Inferno* last week for passages potentially relating to the *Mona Lisa*, I found the following in Canto VII, lines 67-96 (Ciardi translation) in which Dante asks Virgil:

"Master," I said, "tell me -- now that you touch  
on this Dame Fortune -- what is she, that she holds  
the good things of the world within her clutch?"

And he to me: "O credulous mankind,  
is there one error that has wooed and lost you?  
Now listen, and strike error from your mind:

That king whose perfect wisdom transcends all,  
made the heavens and posted angels on them  
to guide the eternal light that it might fall

from every sphere to every sphere the same.  
He made earth's splendors by a like decree  
and posted as their minister this high Dame,

the Lady of Permutations. All earth's gear  
she changes from nation to nation, from house to house,  
in changeless change through every turning year.

No mortal power may stay her spinning wheel.  
The nations rise and fall by her decree.  
None may foresee where she will set her heel:

she passes, and things pass. Man's mortal reason  
cannot encompass her. She rules her sphere  
as the other gods rule theirs. Season by season

her changes change her changes endlessly,  
and those whose turn has come press on her so,  
she must be swift by hard necessity.

And this is she so railed at and reviled  
that even her debtors in the joys of time  
blaspheme her name. Their oaths are bitter and wild,

but she in her beatitude does not hear.  
Among the Primal Beings of God's joy  
she breathes her blessedness and wheels her sphere.

This extraordinary passage has many echoes in Leonardo's writing and images: Nature's rule by [Necessita](#), the laws of [light](#) and the spheres, [unjust accusations](#), material goods and change, [beatific joy](#), [permutation](#), changes upon changes, a [flowing](#) and rotating cosmos, holding in "branches," and more.

Dante voices deep respect for the Ovidian principles of chance and permutation. Quite oppositely, Machiavelli defines his [ethos](#) of the imagination—i.e., the proper use of art and science--as the forcible domination of Fortuna without regard for morality. Leonardo was vastly more [aligned](#) with Dante. Both consistently praised truth over deception, associating the former with light which would always defeat falsehood, and disdained hubristic attempts to master fortune.

In attempting to equal [poetry](#) with painting, Leonardo may well have sought to evolve into the modern era Dante's poetics of beauty and love symbolized by Beatrice, combined with Fortuna's rule over events through time, as [Esperienza](#): a female personification of the guiding ideal of all art and science. (Indeed, the "braiding," weaving of fabrics, and [chiastic](#) motifs in Leonardo's works may symbolize the dynamic fusion of Fortuna and Beatrice into the complex hybrid entity Esperienza.)

Fun Fact: Dante was a political ally of the [Gherardini](#) family, whose motto is the same as Calvino's: "festina lente." :)

Next blog: experience and bridges

## Essay 2

As with perhaps every book ever written, I was hoping that this one would follow a lovely structure – inviting from the curb, placid and charming in its progress, full in all details like a blooming garden free of weeds and bare spots, and resolving gracefully like a well-danced minuet. Maybe I can still salvage some of this, but the chaos and turbulence of the material I am hoping to speak of is on this particular March afternoon making the stronger impression. Breathing and body scan, with my feet flat on the carpet as I type, could be the ballast I require.

Each chapter's essay is taking about three sittings to compose, which is fine. I have no list of topics to work from, but may work on one after this particular sitting. What are the main points of association between Dante and Leonardo? Let me count the ways of my own particular meander, which started in January 2018 when I read *If on a winter's night a traveler*. Not long afterward I bought, and read, and read again, *Six Memos for the Next Millennium*.

1. Calvino wrote in 1985 about Leonardo's poem fragment and overall imaginative personality.
2. Calvino wrote in 1985 about Cavalcanti juxtaposed to Dante.
3. In January 2018 I read what Calvino wrote.
4. In June 2018 I did an art project about stone circles, how they relate to both the seasons and the brain, maps and buildings.
5. In fall 2018 I went to a conference about meditation and neuroscience.
6. In spring 2019 I visited Paris and Florence, homes of the *Mona Lisa* and the Duomo.
7. In June 2019 I did another art project about stone circles, the solstice, and rivers.
8. In August 2019 it occurred to me that the bridge in the *Mona Lisa* might be a visual metaphor related to the sitter's garment.
9. Since that occurrence I have been researching and writing about the possibility.

The first book I wrote about this was based on my blogs from 2020, and for better or worse I think it is somewhat relevant reading if one is to make sense of this one. If you really don't want to read it that's OK too. You can read the blogs or just catch up by reading this book. In the first book I didn't talk much at all about Dante, because I had no idea or thought his poetry might be related to Leonardo

or the *Mona Lisa*. My main goal in that book was to try to look for context that could corroborate (or possibly disprove) the hypothesis that the bridge and garment are a metaphor. I looked mainly at Leonardo's own writing and images, which don't refer much to Dante (or hardly at all that I noticed).

At the very end of writing the first book about the *Mona Lisa*, this being the second, I happened to read in an article about Brexit that Machiavelli used a metaphor about weaving rivers into networks that seemed possibly related – a larger single flow being engineered into a more complex network of smaller flows. It seemed as good a lead as any to follow up, because as I said I had nothing else even possibly linked and virtually no articles prior to 2020 talk about the bridge in the *Mona Lisa*. I then learned that Machiavelli and Leonardo worked together 1502-1503, which is the same time Leonardo started the *Mona Lisa*. That seemed a possible lead too – again, looking at any possible links was the plan, if plan it may be called. Machiavelli calls his river “Fortune” or the principle of luck and chance in the flow or course of human events, and everyone knows Machiavelli's distasteful reference to Fortune as a woman who should be beaten up and assaulted, so on hearing that Machiavelli named his river of historical events engineered by politics into the canals and useful structures of society and the state Fortune his distasteful attributes were brought inevitably to mind.

The coarse and brutish nature of Machiavelli's tone conflicted discordantly with Leonardo's principle of *Esperienza*, Experience, which is experiment in science and expression in art, for which he had reverence and great respect as a peer at least and often a teacher and guide. There was to be no beating and assaulting in Leonardo's system. This struck me as an obvious difference, as opposed to a similarity, and differences are relevant in that they can indicate the absence of links. Leonardo's respect seemed much more like Dante's respect for Beatrice. Beatrice had not been on my radar except for her mention in some scholarship I had read about the “beloved lady” traditions in Renaissance portraiture in the context of the *Mona Lisa*; her “beautiful eyes” and “sweet smile” are compared to the courtly love

tradition which was of course influenced by Dante's Beatrice. Hence Beatrice and Dante were on the table full of puzzle pieces, but of tangential relevance only to my bridge-garment-experience hypothesis.

Now however, after noticing Machiavelli's anti-reverence for Fortune, and sensing an incongruence with both Leonardo's reverence for *Esperienza* and Dante's reverence for Beatrice, I decided I had to read Dante to understand how and whether Beatrice may have related to *Esperienza*. I had also read in Kemp's 2017 book that no full study of poetry's influence on Leonardo had ever been done, and this resonated with my fondness for Calvino's praise of Leonardo's sea monster poem. I have a Master's Degree in English, but had not read Dante closely and knew only fragments and general lineaments of his oeuvre.

A short read into *Inferno*, one sees unmistakably a reverential paean to Fortune in Canto VII. A clear correspondence to Machiavelli is directly in front of the face: Niccolo was trashing Alighieri. Or at least it reads that way to a poetry fan, a species of which I count myself both a student and fan. Was Leonardo defending Alighieri, or yet more, defending what Alighieri was himself both defending and no longer able to defend? Such a subplot makes all the sense in the world to people like that which I have imagined, perhaps most blameworthily, Leonardo to be. A lion of virtue who aspires to win more than a moral victory is the hero I have invented in my mind.

Then, sadly, we get to where I sit today, "alone and palely loitering," as one could phrase it – having found yet further allusions after *Inferno* VII to *esperienza* by both Virgil and Beatrice, but nothing about bridges or garments – wondering if I've cooked up this whole Dante-Leonardo-Machiavelli nexus out of the whole cloth of a disordered mind. I've acquired a hoard of plate and cutlery of dubious alloy, such as the trivia that Clotho is a daughter of some other deity and weaves or cuts the threads of our lives, almost as if having a heavy-laden ship at sea long overdue I sent another equally laden to look for

the first and still lack word from either. Oh well such is the fun and profit of reading new things I suppose.

All this is mostly to say that I have no plan about how to discuss Dante's influence on Leonardo. I have a hunch, and that is about it. I also have a bias and interest in finding something that helps my first book make better sense. That I suppose I can jettison with a clear conscience.

My plan henceforth shall be to read Dante's books – having done so with *Inferno* and *Purgatorio*, moving on to *Paradiso* – including *Di Vulgari Eloquentia*, *Di Monarchia*, *La Vita Nuova*, and mayhaps even more. I cannot pledge to read everything that has been written about Dante, but perhaps I can pledge not to read much that has been written about him except where it's unavoidable. In other words, I will read his actual writings and offer my take on them but I will avoid a review of the full range of Dante criticism. This is closer to what my skill and knowledge allow and is what I'm interested in. It could be terribly unprofessional, this approach of making up my own mind about a writer on whom so very much has already been written; not speaking or reading much Italian at all might make it even worse. I do promise to look at the original Italian as much as I can, especially when it comes to certain word uses (mainly "*esperienza*" I suppose).

The essays will also, as with the first book, follow the path of the blog. "Fortune's Garment," from this month's blog, actually last month's because I am behind due to lack of settled procedure for which I must apologize, is important because it is from the title of this book, the second book. I was going to use Leonardo's very odd drawing of a dog sailing a boat toward an eagle, because tillers are associated with Fortuna, but changed my mind. While researching Fortuna I found that the deity's power is often illustrated by clothing. One can see this in the famous and curious *Carmina Burana* illumination. It's basically a wheel with four "stages" that represent the four states that Fortune assigns to us. One is the king, with crown and robes, called "I am king" or something like that. As the wheel

turns clockwise to the second stage, the king gets turned upside down like on a ferris wheel so that although his robes remain his crown is falling off; this is called "I was king" or something equivalent in Latin. At the bottom stage, called "I have no kingdom," the person is laying flat as if being squashed, and has neither a crown nor a royal robe. The final fourth stage, at nine o'clock on the wheel, is called as you might guess "I will be king," and although the person has no robes or crown they are at least upright and revolving inevitably toward the top stage of being king.

I point this out because it shows that clothing is a key aspect of illustrating how Fortune operates, and images of clothing being lost or gained go back to the origins of the deity. My expertise on this comes only from a general internet search in the interests of Time, but I did search for the phrase "Fortune's Garment," thinking it a fairly good one and wanting to know that I would be able to verify my fondness for it. I found an article which explained to me about how clothing is an attribute so to speak of Fortune. It's like a symbol or visual image that accompanies descriptions or depictions of Fortune, such as, "investors lost their shirts."

This brings up another quotation I was reading last night, while scouring to find the source in which I just this week found a quote from Petrarch, friend of Dante and one of the Three Crowns in Italian literature and often thought the chief, in which he said something like "my style isn't very fancy but it fits me like a trusted garment." I would have thrown that in the hopper with my other "possible links" between Leonardo and metaphors about garments, since Leonardo lists in one of his personal book lists "Petrarca." Of course that aligns all too well with "you who go about adorned in the labour of others will not allow me my own?" This rather cuts to the chase but the race is not always to the swift.

The point about the Petrarch garment quote (though I must admit it could have been Plutarch, so little did I mark the source in overconfidence I'd never forget it) is that I cannot write you an original exposition of all the meanings of Dante. I don't have the time or training. Most of what I shall relate is

in the realm of “some say” or “some have said” or some evidence shows and such like. I’ll try to cite references as much as it is helpful, and achievable, but this book is not by a long shot “the authoritative reference work that explains Dante.” It is, rather, this author’s take on Dante during the very, absolutely early stage of study. I will point out key things I think are relevant and back them up where I can. But the goal is not to recap or archive all the best that has been done and said about Dante. My hope is to find some new dots or at least some new connections.

As Leonardo said, in the essay I was scouring as described above, trying to find Petrarca’s garment quotation, it quotes – the author, Giorgio de Santillana, rather, quotes – Leonardo saying “don’t try to figure out the ends of Nature, which does its thing regardless of what you do or don’t do; rather, try to understand the ends of your mind’s own drawings and designs.” This is my rephrasing of a translation, but the point should be clear. Leonardo’s notebooks show his mind and being really in mid flight. There is no cataloguing of objects and compartments. Santillana’s essay “Leonardo: Man Without Letters” is simply wonderful in describing this, and it is germane to how I have to write this book for you. I will try to write it for you, the reader, even though I don’t know who you are. Or to put it another way, I will try to write it for someone I like and respect which ideally will be as many people as possible. That can be a goal I can promise to work toward.

What are some other fragments or rather “key nodes” in my approach to Dante? Well there are a good many. *La Vita Nuova*, an interesting book of sonnets and explanations of those sonnets, describes how Dante’s love for a living human woman becomes, after her passing away, a love of a different sort being reverential, devoted, imaginative, and non-bodily. The obvious word for that is “spiritual” in Dante, but not knowing the Italian I could be barking up the wrong tree. What is clear is that Beatrice becomes Dante’s guide and teacher in how to live, experience life, and express himself through art. The love is still there but it has changed form. That’s a very important aspect about Dante, because it influenced Leonardo’s personification of *Esperienza* (or so my hypothesis says).

The Santillana essay is freshest in my mind just now because that is what I was reading before sleep last night. John Keats' poem "Sleep and Poetry" was a big influence on me when I was eighteen in college, "O for ten years that I may do the deed / that my own soul has to itself decreed" for example. Leonardo also provided guidance on how to think about the imagery you've seen during the day as you prepare for sleep, as well as how to behave after you wake up. For example, I like to write in the morning – though not an early bird – rather than the afternoon or evening. Afternoons I like to go outdoors, and evenings I read or draw or paint.

Dante writes a lot about the number nine, and why he associates it with Beatrice, in *La Vita Nuova*. He considers it an elemental number because it represents three relating to itself: three threes. This corresponds to what Leonardo says about human consciousness, i.e., that if we will not know ourselves we dwell in poverty, and it is us who are that poverty, to quote the Dead Sea Scrolls. Leonardo says the same thing with a frightening and sad image most trenchant to our day: People who won't know themselves will prey upon each other, burn up all the forests, and cause desertification, at which time life on earth will end. Sound familiar? Possible? Only a fool will say no.

I like the quote at the end of perhaps *Purgatorio*, in which Virgil says to Dante "I crown you now king of yourself." That's the three threes: knowing, loving, being your self. No one else can do it for you, by definition, though the nature of sales is to try to promise you otherwise. Or as Petrarch would have put it, lawyers sell justice (he and his dad were both lawyers).

Leonardo is not "the same" as Dante, not "identical." There are strong equivalencies that exist between the two, such as in how Shakespeare adapted Plutarch's lives into *Hamlet* and gosh knows what else, or how Galileo adapted Leonardo and tried to publish it (but got arrested for it and had to recant). Leonardo is not "illustrating" the *Commedia*. (I'm using too many quotation marks this lovely Sunday.) Nor is Leonardo stooping to something so lowly as to dispute Dante. We have to go back to

what Leonardo's creed is to understand: he is experiencing Dante. He is drawing and designing experiments and expressions of his mind in conversation with Dante both word and image. The admonition and quotation of Marius (a quotation Leonardo may have simply invented) tells us yet again, if we read it again, he contrasts his own path of writing and imagining from *esperienza* not by parsing the works of others. Such parsing is the work of scribes, numerical indexers really, who have no grasp of meaning whatsoever and never could in their scribbling role. Melville shows us the obliteration of not just the human being but the seas and forests when such scribbling goes unexamined; or if examined, unescaped. Algorithms are not so very unlike copyists. As Leonardo might say, or as Santillana might say Anaximander might say, "what you are copying isn't it, because it can't be copied."

My crude peasant knowledge of quantum theory and Gödel would like to chime in here to say "what can't be copied? It seems like anything can." A very good and important question. People love our copy machines, and dream of things like chickens who can lay a billion eggs a day or gold ones, or trees that sprout apples with paid mortgages or health insurance inside. We want copiers. We want elves who simply by being dreamt up can sweep the chimney and mend our shoes overnight while we sleep. What we want most is for the happy elves not to suffer, the little elfies, but to mend and sweep out of sheer joy. So why wouldn't we like to task our computers with the same scribbling? We do, we do.

As this book progresses there will be examples of speculation, like "person A said such and such and it might be true" or "it might mean this." I'll also say flat out guesses like "it's possible ABC could be true." In some ways this reflects due and proper method in keeping with Thucydides, an ancient Greek history praised as the first rank of accurate reportage. He just said what happened, qualifying his sources, and tried not to embellish. Herodotus is the other option of Greek history; he focuses on telling a good story. I do some of both, yet I hope without making too much mud out of it all. Many who never mix will say "his book is the worst book, because it does the worst thing, which is mixing." I would urge

you to question that. Leonardo says flat out that the people who copy what other people have said in books are kind of like computers run amok. They just repeat and repeat and slice and dice without any feet on the ground. He warns us to distrust these scribes. He also warns us: they control everything that can be controlled, and it's getting worse not better.

You will have to judge for yourself whether I am a good or ill person, trying to lie to you or take your money or subvert your community. To be sure I am as capable of those things, those subpar behaviors, as any person that ever was (well maybe at least average). Therefore I'll try to provide helpful evidence or examples to help such a determination, and also to do what a not-ill agency would do. Do no harm, and try to help. Be not selfish with the patient's goods when you are in their hut or abode. Take not their goods without permission or lay with their serving-people. The Hippocratic oath can apply to words and images too! I will blunder often but will try to stay true to my hopes.

I can't remember why the number nine cropped up – oh now I do. My knowledge of Dante is new, and not great. I'm working from translations, which is also an obstacle. Thus it occurred to me this morning that for all you know, Dante never talked about the number nine and why it is relevant or emblematic of Beatrice in *La Vita Nuova*. He even had all his key dreams, visions, poetic inspirations, and emotional transitions regarding Beatrice at either nine AM or nine PM. Yet it occurred to me, you would have no way to know if this is true without doing a ton of research and how can we go quickly, as Galileo said the alphabet helps us do, if you have to do all that research? In fact, to go to the limit, what I speak of might not even exist as far as you know – no Beatrice, no *La Vita Nuova*, not even a number nine. What then? It's just as Calvino said, and the entire world is on the verge of turning into stone.

It then occurred to me that I could make up a number "refive" like five, but actually representing seven and a half. Then I could write a sonnet in the rhyme scheme of *La Vita Nuova* about the number:

To Vortumna

If one could take the number five and then  
 By halving, keeping whole the both to add  
 Into a term that sits where it was bade  
 The clock's lone nine to live by eight and ten;

This number might be pondered to your ken  
 Where trigonometry's fine robes have clad  
 The sine wave at its depth, yet rising glad  
 To close its cycle at the origin.

Yet no such number is for me to claim  
 May add a hope to this world's sense of calm  
 And help the mourning soul to meditate

On that returning to a friendly name  
 Which having not, we lack the tender balm  
 That this fair globe of life may consecrate.

Many of you will know some poetry, and can judge this as terrible or not so terrible. For myself, I feel just happy that I could write a poem at all that rhymed and it didn't take very long – Maybe just fifteen minutes. All I wanted to say was that I don't know if I can give you the absolute truth about Dante in this book. You would do just as well to read some of his writing, or search on the internet and find some information. Best yet, you could ask friends, human friends, by physical talking with your vocal cords in air as opposed to bits and bites over the wire. Have they read Dante? Did they like it? What is it about? For myself, I love paper, and am reading the Ciardi translation of the *Commedia*. (I tend to call it the *Commedia*, or *Comedia*, because that was the original title given by Dante himself, but I acknowledge this is a presumption on my part and an indulgence of my own preference for oddity.)

Calvino in *Six Memos*, which I have absolutely on the brain, says that Dante represents solidity as opposed to lightness. He also advises us that lightness might be of great importance to this century, or rather, this millennium, which is a bold prediction, the third. The idea is not too rash: having built up a lot of solidity over the second millennium, from 1000 CE to 2000 CE, our greatest risk now (or greatest opportunity) is not in the lack of solidity but rather in our ability to remember its contrary, that which

makes it most lovely and full of life, which is to say Lightness. Just think of the twentieth century if you want to envision the absolute triumph of heaviness – it’s basically insupportable, albeit with a few sparks and glimpses here and there. Certainly it was at the center of that century, 1950, that made Calvino fear he might be turned to stone if he looked too closely at what was going on. The petrification seems to allude to an illimited wish to lapse into senescence, in which Keats said “shade to shade will come too drowsily.” Calvino admired Dante profoundly and with full honors, yet he had the wherewithal to say that just printing a trillion copies of the *Comedia* will not fix us.

It is my opinion that Leonardo was an artist and a scientist of lightness, in order that he might better perceive movement in the observable realm. Dante had a more earth-centric approach, in which to emulate the movements of the seen cosmos one postulates a fixed center. Both are fine, and naturally one precedes the other (often if not always), yet there are times when the fixed center is off if even slightly. Maybe it comes down to one’s situation and the need at hand. Certainly Leonardo’s view of the world, if we might call it by the heliocentric school, has center. He says, far more perfectly than I ever could to make his meaning plain: “The earth is not in the centre of the Sun’s orbit nor at the centre of the universe, but in the centre of its companion elements, and united with them.” There is absolutely center in Leonardo’s vision, yet it moves; this does not cast doubt on the function of light (as uncertainty of what was real once did so terribly) but rather harmonizes with it in deep respect, and this respect goes in all directions. Both Dante and Leonardo are completely dedicated to observing light in all its meanings. They are part of the continuum of learning and growing that humans have had to follow, different but only absurdly considered enemies and not even discontinuous any more than snow and meltwater are.

I’d like not to have to ask you to read some Dante, read some Leonardo, look at images of both, and look at my first book, but realistically I must. Otherwise I’m just whistling past the graveyard. Calvino too, but no more Calvino than is in the blogs need be read if you are strapped for time.

(Honestly you don't have an afternoon free for reading *Six Memos*? If you can't part with four hours of screen time to look at some book pages, even if you wanted to, I would ask if that feels right.) For me the screen or *tabula electra* alters my brainstem or neck muscles now, at my aging state, making my teeth and eye sockets feel a bit metallic as if filmed with aluminum. Paper reminds me of walking on dry grass or a sandy trail, leaves in autumn, a sunny breeze, what Keats may have meant by "the salt-sand wave." You don't have to read everything though, no way. In fact I'll try to make this entertaining even if you don't have time to read any Dante, Leonardo, Calvino, or my blog at all.

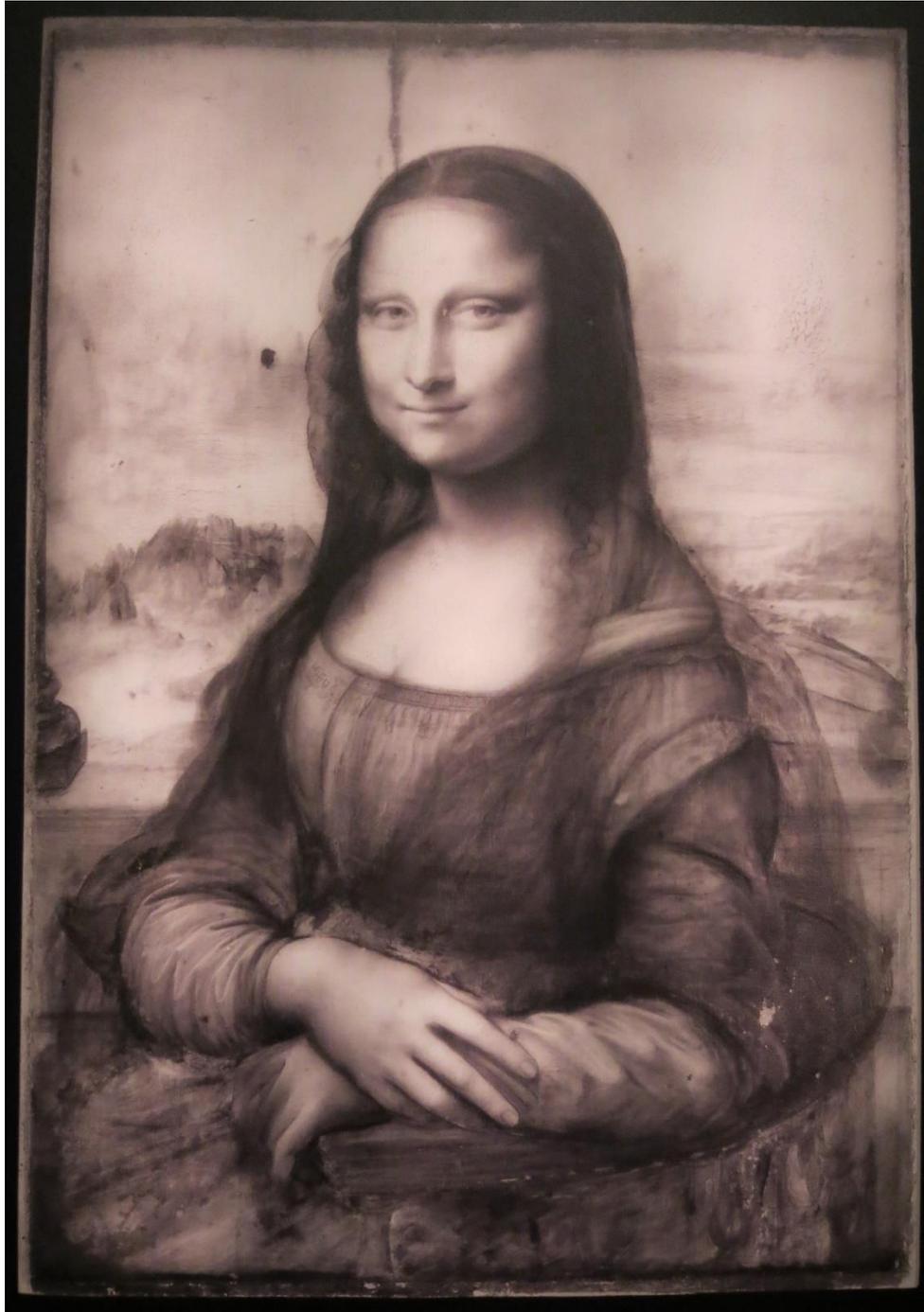
It's also not about judging either Leonardo or Dante, but allowing each to be freely what they want to be. They don't have to be identical is kind of the point. It can be as simple as saying that Leonardo saw the universe as more in motion, not to reject or despise those who preceded him and saw more fixity but to bond the structure they rightly saw to the changes reality goes through. It's a little like holding on to your pencil for dear life as my kindly third-grade teacher used to say. It's much harder to write or draw when your arm and hand are clenched. There's a time for that but also time for lightness. This is how I feel about Fortune's Garment so to speak. There's a breathing and a movement that occur when we see our art as a light garment lightly woven. Dante writes of the leaden cloaks borne as punishment by those who commit fraud, the deceits they manufactured so free from care or conscience in this life being paid to account in the life of the soul. Then there is also the garment of Sirena, who wears a dazzling dress but is decayed and unhealthy on the inside. It was Sirena that was the copy of Beatrice – the beauty without the truth and constancy – that almost took Dante away from what he really cared about. Whose garment is it in the *Mona Lisa*, and who is in control of ownership as opposed to peer and equal, is what we are meant to ask and understand. Or as Leonardo said, "Every instrument [i.e., human sense perception] requires to be made by experience."

Graphic 2



Web log 3

## The Mindful Mona Lisa: Experience and Bridges



By Max Herman  
Thursday, 03/04/2021

Looking at the infrared [image](#) above, what is missing? The bridge! This means it was added late in the composition, perhaps even last. There must have been a reason for the change, but what?

The more I study Dante's *Divina Commedia*, the more parallels with Leonardo's work become apparent. This is perhaps to be expected, as Dante was the greatest poet of his age and addressed many themes of interest to Leonardo such as art, optics, ethics, astronomy, psychology, human imagination, and the natural sciences.

One can even imagine the *Mona Lisa* as a subtle reference to the *Inferno* (left background, with Styx or Acheron), *Purgatorio* (right background, with Lethe), and *Paradiso* (the sitter as Beatrice/Fortuna/Esperienza), conceivably in response to Michelino's famous 1465 [painting](#) of Dante in Florence Cathedral.

Although the *Commedia* is structured around several key river crossings, the only specific bridge I have so far found referenced is Florence's [Ponte Vecchio](#), which Dante states in *Inferno* XIII was dedicated originally to the Roman deity Mars and then later to St. John the Baptist.

Further investigation is essential, but since there is no standard [symbolism](#) to bridges in ancient or medieval culture it may be a metaphor of Leonardo's own design without a clear counterpart in Dante's writings: a key addition with a unique purpose.

One of Leonardo's last drawings, *Woman Standing in a Landscape*, appears to include a bridge, whereas Botticelli's [illustration](#) of *Purgatorio* XXVIII (to which Leonardo's drawing is often considered a response) does not. This juxtaposition potentially links the *Commedia* to the *Mona Lisa* and the bridge, and warrants full study. Of first importance is to consider whether there is a bridge in Leonardo's drawing -- which most scholarship does not address -- and if yes, why the figure is pointing downstream in its direction.

The following passages provide additional promising lines of connection between [Dante](#) and [Leonardo](#).

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Leonardo: "Sound rules are the issue of sound experience — the common mother of all the sciences and arts."

Dante: "From this instance [of confusion] if you will do your part / you may escape by experiment, that being / the spring that feeds the rivers of man's art." (*Paradiso* II.94-96)

The Italian "esperienza" is translated as "experiment":

94 Da questa istanza può deliberarti

95 esperiënza, se già mai la provi,  
96 ch'esser suol fonte ai rivi di vostr' arti.

+++

Leonardo: "Men wrongly complain of [Experience](#); with great abuse they accuse her of leading them astray.... Men are unjust in complaining of innocent Experience, constantly accusing her of error and of false evidence."

Dante: "And this is she so railed at and reviled / that even her debtors in the joys of time / blaspheme her name. Their oaths are bitter and wild, / but she in her beatitude does not hear. / ... she breathes her blessedness and wheels her sphere." (*Inferno* VII.91-96, on [Fortune](#))

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Leonardo: "Painting is poetry which is seen and not heard, and poetry is a painting which is heard but not seen. These two arts, you may call them both either poetry or painting, have here interchanged the senses by which they penetrate to the intellect."

Dante: "I yearned to know just how our image merges / into that circle, and how it there finds place; / but mine were not the wings for such a flight." (*Paradiso* XXXIII.137-138)

+++

Leonardo: "If you [the poet] would say: but I describe for you the Inferno, or Paradise, or other delights or terrors, the painter can beat you at your own game, because he will put it directly in front of you."

Dante: "When finally you stand before the ray / of that Sweet Lady whose bright eye sees all, / from her you will learn the turnings of your way." (*Inferno* X.130-132)

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Fun fact: The year 2021 is the 700<sup>th</sup> anniversary of Dante's passing, and a great excuse to read the *Commedia*! :)

## Essay 3

Regardless of what I can prove, it is fairly certain that Leonardo read Dante as a youth and knew his work very well. Others have established that Leonardo was known among his wide circle of friends, colleagues, and acquaintances to be an expert on Dante. We should balance this context, I think, against the relatively few direct writings about Dante in Leonardo's notebooks.

In this chapter I will focus on what is in Leonardo's notebooks about Dante. My resources are slim: the internet, and a copy of Richter. Take what I present with a grain of salt, if I forget to add one at the time of mention.

Before starting in however I'd like to place a sonnet (of incorrect form however) which my writing about Vortumna may have prompted, assisted by the start of the George Floyd trials in Minneapolis today.

March 2021

Today while driving to a park I saw  
 The Second Precinct double-ringed in fence  
 Up on big concrete blocks, the inner wreathed  
 In shining helixes of razor wire.  
 A bramble more filled up the space between.  
 Something about the heavy mixed with sharp  
 And bright with dull, the tangle and the wall  
 Seemed natural, however it was not.

The algorithm choosing war or peace  
 (Because we humans lack the confidence)  
 Is blind to what our hearts may wish to do.  
 It only knows the actions and the fruit.  
 The partisans of January Six  
 No longer guard foundations of a state;  
 In fear of fading myths they turn to ruin.

What terrifies them simply is the vote,  
 The right of each to have a voice their hell.  
 Destruction's what they want! There's nothing left  
 But wrack to stem the even steps of peace.  
 When we stay calm, their rabid hatred shows;  
 Not violence but meditation wins.

I would never want to claim it is a great poem; my style is outdated and stodgy with many bad habits and few if any good ones to counterbalance. I include it here just to make note of an occurrence, i.e., that I wrote a poem yesterday and those were the words in it.

Before continuing on with this essay I also have to finish reading the *Paradiso*, being as yet only on Canto V of my close reading.

+++

I'm done! Didn't find any bridges or special garments in Cantos V – XXXIII.

+++

As of today, March 16, I haven't found too much clear evidence in drawings that Leonardo was referring to the *Commedia* beyond *Woman Standing in Landscape* and *Allegory with Dog and Eagle*. The relationship between the former and Botticelli's *Purgatorio* XXVIII I discussed earlier. The eagle in the latter is identical to one of Botticelli's (the upper) in his illustration for *Purgatorio* IX, and the shape of the boat matches Botticelli's illustration of *Purgatorio* III, which depicts the boat piloted by an angel that carries souls from Inferno to Purgatorio (as described by Dante in *Purgatorio* II not III). The compass in *Allegory of Dog and Eagle* resembles the second emblem by Leonardo in his *Three Emblems* drawing of 1506-10. I will of course keep researching to find out if Dante discusses dogs, or trees being used as masts.

Dante does discuss in *Purgatorio* XXXII and XXXIII the tree which is dead then brought back to life. Therefore it is conceivable that Leonardo's *Dog and Eagle* allegory portrays Leonardo's transplant

of his own corpus and oeuvre from the hostile land of Italy to the ideally helpful land of France. I did find a fair number of themes in Dante's text which could help illuminate references by Leonardo.

When approaching a "mysterious" work such as *Allegory of Dog and Eagle*, it is important to ask why it is mysterious. Do we just not know the artist, or their style? Is it blurry? The mystery (remember, the word "mystery" originally meant something like "ritual" where we are led through an afternoon of song, image, dance, speech, and often architecture, in ancient Greece and Rome and by extrapolation many later such clubs for the well-to-do) could be intentional rather than accidental. My sense is that the dog/eagle/boat allegory is intentionally confusing, intended partly for Leonardo to express a meaning for his own benefit (given that he thought and felt often through images and image-making) as well as for those he trusted to share in his personal inner life. In narrowing the image to such an audience, he chose elements which would only make sense to people who cared about him and his work and valued both enough to spend a lot of time engaged with them. He filtered out the general public, and people antipathetic to him, in this manner.

Of course, even those wishing ill for Leonardo in his day might very well spend plenty of time scouring his papers for damning evidence they could use to extort secrets, assets, or labor from him. Thus the savvy and professional Leonardo would make any compromising message not just difficult to detect, but once detected, insupportable. If no one can be convinced that Leonardo is saying something inappropriate by dog/eagle/boat then the potentially affected authorities won't care either. Insulation from conviction due to incoherence is a great way of avoiding excess effort.

Perhaps the best way to start evaluating the drawing *Allegory with Dog and Eagle* is to start with the Eagle. It is a more or less exact copy of Botticelli's from *Purgatorio* IX. Therefore we can perhaps say that Leonardo is telling us that *Purgatorio* IX is relevant, Botticelli's illustrations are relevant, and Dante is relevant. (Of course all this is somewhat contingent on Leonardo's eagle being a copy of Botticelli's.

This is not at all implausible, since it is already accepted that *Woman Standing in a Landscape* refers to Botticelli's *Purgatorio* XXVIII.) Leonardo is thus linking to *Purgatorio* IX, and arguably to the other eagles in the *Commedia* such as the Roman Eagle in *Paradiso* IV.

Once we have a plausible link to Botticelli's *Commedia* by way of the eagle, it becomes more plausible that the boat also links, namely to Botticelli's images for *Purgatorio* I and III. To me, those are rather odd-shaped boats in Botticelli and the same odd shape in Leonardo seems more than coincidence. But why is there a tree in the boat? Since the boat is going (in Botticelli) from Inferno to *Purgatorio*, we can interpret it as going to safety or "a better place." Since the tree is in leaf, it compares to the tree of *Purgatorio* 32 which became barren when afflicted by adversaries but returned to life when protected. This, to me, aligns with Leonardo's flight to France. He and his work were not safe in Italy any longer, and he very much wanted his work to survive him.

Why the dog? This is the humble side of Leonardo, which works hard, follows the rules, and waits patiently, as opposed to the lion. Leonardo learned patience and humility the hard way, i.e., by being sent to jail in his youth. He saw up close how easy it was to destroy someone forever just because of a relatively minor act of impulse. In one passage, he wrote about being a poor peddler who had to take his wares and curiosities to small humble markets because the big sales were all going to luckier ones than he. The dog is patiently following the compass and steering for a better world, with French connotations due to the eagle's crown.

Yet the image goes beyond France, just as the eagle presides over all the world. Leonardo seems to be saying "I am piloting the ship of my life this way in order to deliver my work to all the ages yet to be." The allegory expresses irony and paradox; not unlike the parable of the tortoise and the hare.

Since the tiller is an attribute of Fortune, and Bosch has a tree or tree-like mast in his *Ship of Fools*, I have wondered if *Allegory with Dog and Eagle* might be some kind of a reference to Fortune, which was an important concept for Leonardo, but I haven't been able to find a connection. Durer depicted the Ship of Fools being steered by Fortune's Wheel; could the compass be an allegory for Leonardo's long-term goals? He wrote of the need for patience, to overcome obstacles, to keep his eye on a distant star and navigate with "*hostinate rigore*": "Obstacles cannot crush me. Every obstacle yields to stern resolve. He who is fixed to a star does not change his mind." And surely, to reach a far-off point one does not point and shoot a boat. The compass and tiller are required, which requires humble dedication of a human's best friend. It is even possible that Leonardo meant to reference Dante's message about the despoiling of the tree by those who would eat its fruit when forbidden, and the great worth due those who refrained. If the tree is to make it to shore robust enough to transplant care must needs be taken. This is good advice for anyone who cares about Leonardo's hopes and goals for the world, and explains to anyone who cares about Leonardo's work why he set a course for France.

In this sense, Leonardo is leaving elements out – using mystery – where it is necessary for both safety and to require work, hence learning, from those who would like to support what he supports. Spelling his message out in unmistakable terms would prevent it from ever arriving, much less making a difference when it does.

The above is far from professional on my part. I admit this. What I would like to emphasize however is not its perfect accuracy but its general outlines: Leonardo makes his meaning known to us by referring to relevant ideas in Dante. Dante is the Poet Leonardo is talking about when he says "The Poet," and of course, when he says "the poet says he can put Inferno and Paradiso before our eyes."

We must also consider that the *Commedia* is said to be about friendship and constancy. Specifically, moreover, about the friendship between poets and painters. By this I mean what is said in

the *Digital Dante*: “[T]here is no theme that has deeper roots in Dante’s poetry than that of male friendship, particularly friendship among poets and artists.”

It is also important to note that *Purgatorio* II, the source of the angel’s boat, discusses Exodus:

“The psalm is sung by souls who are being sailed to purgatory by an angel-helmsman. Dante’s friend Casella will explain later in the canto that all souls bound for purgatory gather and are picked up by the angelic craft at the mouth of the Tiber (*Purg.* 2.100-05). The psalm’s theme of the Exodus, the flight of the Israelites from bondage in Egypt, clearly resonates to the theme of purgatory as a quest to leave bondage for freedom.”

Therefore the *Allegory with Dog and Eagle* could be about Leonardo’s attempt to find freedom too.

Since we are seeing in *Dog/Eagle* an Eagle from *Purgatorio* and a boat from same, it is very plausible that the tree could also be from *Purgatorio* XXXII and XXXIII or comparable in some respect to that tree. In *Purgatorio* XXXIII, the tree is both made barren by an eagle and restored to life by an eagle, in a case of punishment followed by clemency. This is a reference to eagle as symbol of justice. If this kind of association is correct, it makes sense to view the tree as a symbol for Leonardo of his own work and aspirations, and the entire tradition of which he felt he was one among many servants. This would parallel more or less exactly Dante’s hopes of saving art, science, and culture – including religion and politics -- from those who would despoil them for selfish ends.

All this falls under what I would call the Thanksgiving Dinner effect, by which we avoid talking about religion and politics so that a celebratory meal can be possible among friends and family members who may differ on certainly philosophical points. Dante appreciated this, as did Leonardo. Discretion is the better part of valor, when considered with a calm demeanor.

Also perhaps relevant to all this are some thoughts about the koan or “judge’s bench” and my decision made as I type this to mention *The Translation of Dr. Apelles* here, as part of *Experience and Fortune’s Garmant*. Leonardo was amply concerned with the long-term safety of his works in word and image; he designed them on all levels for longevity as well as impact. They needed to be preserved by

those whose interests would ultimately not be served by preserving them. This required a lot of balance and compromise, combining secrecy along with publicity. Leonardo definitely wanted, and designed for, an oeuvre that would conceal much of its meaning until such time as that concealment was not necessary for the safety of the message per se; at such time the concealment would end. Then a different function of the oeuvre would begin to operate, i.e., the concealed information would emerge and start to affect reality and the life of the planet. Preservation, security, access, and impact are all part of the design. If we pretend that Leonardo had no interest in this type of engineering, and certainly no capability, we are simply hiding his light under a bushel. Emblem 3 should urge us to consider the alternative. Will it really destroy all that is good to acknowledge *Esperienza*? We are already trying to do it and all Leonardo wants to do is help. It is important to ask how much danger such a discussion actually still poses, what might be its potential benefits, and open discussion accordingly.

We can also ask: is there risk in hiding Leonardo's meaning indefinitely? I would say absolutely yes; he knew the risk of avoiding certain questions indefinitely and knew in advance the kind of things we would still be struggling with 500 years later. He did not say or do things recklessly, nor selfishly, and we should absolutely pay attention to what he has done. His goal, like Dante's, was to help us remember conscience and avoid disaster. Even if he is wrong, we should listen and look.

There are those who will say that I am making all this up, and therefore obscuring the true meaning Leonardo wanted to create, discover, and transmit. I am not averse to debate, and know full well that I have more research to do. All I wish to say at this point is that I think the research is warranted, the hypotheses could well be true, and if true, acknowledging their truth could be very helpful. I'm also, one might imagine, just writing a fiction that needs to be written. If your skepticism is obliterating all else think of this as a Calvinesque mystery novel with imaginary characters and facts; if it has value in that sense then factual truth will just be, if found, the icing on the cake!

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I have found a couple of good articles that I think will help with my understanding of *Allegory with Dog, Boat, and Eagle*, which I will call “the” Keizer and Marmor for simplicity. Why does this drawing matter? Well, it’s one of Leonardo’s most detailed and the meaning is unknown. It depicts a dog sailing a boat with a tree in it toward a giant eagle which is shining like the sun. Odd right? There are a lot of interpretations, but if Leonardo didn’t see fit to notate anything (which he didn’t) and no one else had an opinion about it at the time, no patron or friend involved in talks, perhaps it was meant to be enigmatic and koan-like. We must remember what Leonardo quoted most explicitly from Dante – which we can paraphrase as “get to work” – and realize that he was obviously not just talking to himself! He was telling us that humanity’s long-term challenges are serious, and we – you and I, dear Reader – have to work if anything close to best solutions are to succeed.

These are key: Leonardo’s indirection, his use of layers to create interconnections, and his universal compass. He really was trying to deal with all topics, or what is sometimes called “the rational investigation of the whole” which is one definition of philosophy. Of course he also admonished that we must study “the art of science and the science of art,” which is a truism that can be read trivially or otherwise. In general my belief is that the Leonardo we encounter nowadays is severely sanitized, and this is in a sense causing the tree of his oeuvre to wither more than needful or helpful.

Or to put it another way: Leonardo was a savvy professional, far from naïve, and operated in the trenches for literally his entire life. We oughtn’t read him as someone in a pampered and oblivious ivory tower. It is, on the contrary, far more important to view him as an exact peer of ourselves. Most historians who pay their mortgage with history will tell you “oh no Renaissance people were very different from us modern up-to-date people; more like cartoons really with puffy hats saying ‘thee’ and ‘thou’ and wondering if the moon was made of cheese.” This is all well and good if one is in the theme

park business, which most museums sadly are, but not if one is looking for real help in our many present dilemmas.

We might even do better, and see more clearly, if we consider ourselves the cartoons. We consume almost all of our words and images from a feed-tube we call “remote vision.” We use our own vision, and hearing, not to mention drawing and word-making, only in very limited cases such as when buying things. Consider it a poetic fancy or masquerade experiment if you will, but I would strongly urge you to at least for a time think of Leonardo as the lucid one and yourself as the clown or “product of a limited age.” Leonardo did things for reasons, at least we must begin to entertain this probability.

Therefore dog/boat/eagle is intentionally vague. Why? Leonardo knew he was ranked number one of all artists, and frankly, he knew that even those who said he was number two were a bit rickety in their logic. This did not make him happy, at all, but rather it was more like a headache. He didn’t want to be rich or famous, per se, he just wanted to make the best work possible (like everyone does). He knew very well that being “ranked number one” was just a lot of BS that got in the way most of the time. However, he also knew that it provided one potentially useful tool i.e. longevity. He had some reasonable confidence that his works might be preserved for the future, and the idea of “fame” goes back to ancient times. Indeed, the idea of individual longevity – a person’s signed works lasting beyond the lifespan – was one of the major “rebirths” of the age. The poet’s laurels returned to leaf, as it were, with of course the subtle undercurrent of future blight ever-present if just beyond earshot.

Keizer and Marmor’s articles are very useful in establishing that Leonardo took both allegory and Dante very seriously. I won’t try to re-write their articles here, but will just thank them for writing and use a few snippets when I can muster the patience. (The articles are on the internet so please check them out: they are “Leonardo\_and\_Allegory\_Oxford\_Art\_Journal\_35” and “Par\_che\_sia\_mio\_destino\_The\_Prophetic\_Dream\_in\_Leonardo\_and\_in\_Dante.”) The wonderful

Solmo, I learned from Marmor, said “*Leonardo da Vinci fu studioso appassionato delle opere dell’Alighieri.*” If we are to fully appreciate Dante for his 700<sup>th</sup> anniversary celebration this year, we must appreciate his influence on Leonardo and not quail at what might be dislodged in our preconceived cartoons of both.

Apropos of music, I still appear to require listening to *A Musical Offering* as I type, so this will continue as it did in the first book.

It seems to me that Leonardo is trying to tell me something with Dog/Boat/Eagle. It is almost as if he is teaching me a language, by telling me a story as well as by creating a place. Place is very important in how language works. When early hominins moved about, they had to make new stories to map the new places. Bad places may have just gotten a name and epithet – Dangerous Desert – and avoided. The stories and words were refreshed for the necessary places. In Dante, place is very stable. But what happens when places change? The DBE allegory is about this. Leonardo had to change his place. He also wanted to tell us that our place was changing too, whether we liked admitting it or not. His work steering that little odd boat with its sun-dial of a compass, ferrying that thirsty and almost dirtless tree, with his assiduous dog-paw is a message to each one of us. He’s saying, “don’t think you are out of the woods yet, my pretties.” We shouldn’t lie around in our quilts and comforts thinking that the “deed is ever really done / for heaven and the future’s sakes” by digesting our feedbags’ contents in repose.

Perhaps we have to steer that boat with our dog paws too, but honestly, he’s saying something a bit different. We are sort of bystanders to this scene of travel. We don’t get to vicariously reassure ourselves we need only do our canine best. Our role isn’t clear. Where is the viewer in the image? On the shore it seems – out of the mix. We are somewhat on the globe – since what isn’t? – and we even might be a citizen of a relevant nation governed by an eagle. We are of course, both each our own tree

of growth – as the *Digital Dante* site says regarding *Purgatorio* XXXII, check it out – and inhabitants of some community which also may flourish or wither as the case may be. There’s a lot going on here, in other words, including Exodus (see *Purgatorio* II and the song Dante references). Personally, I sense a good deal of Pound’s “The Rest” here: “O helpless few in my country / O remnant enslaved... Take thought: / I have weathered the storm, / I have beaten out my exile,” though now is probably not the time for self-pity if ever any was. Not to say “The Rest” is totally self-pitying. The poem, sad to say, meant a huge amount to me when I was twenty.

Each chapter must have a canzone, of ABBA, ABBA, CDE, CDE, and this image may be the one I have to do here. Dog/Boat/Eagle is important I think because when considered along with *Woman Standing in a Landscape* it forms a solid plan for how we can integrate Dante into Leonardo’s works. The relationship is far from simple photocopying. We would do better to think of the relationship as being as complex as possible, as complex a relationship between a visual writer and a literary painter as there could possibly be and almost certainly ever was. There is no Leonardo without Dante, not now and not ever. If this diminishes any mystique or halo around either that is by design and we should not try to assuage our discomfort by hiding under the blankets.

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Did Leonardo hide a meaning in  
 The dog and eagle allegory drawn  
 With such discretion, moving like a pawn  
 The image forward, silent in the din?  
 The dog is humble, earnest, wise; has been  
 A long while aiming toward a dawn,  
 Is not in anger, nor does servile fawn  
 At crowns or light, the world’s all-ruling djinn.  
 The boat is shaped like Botticelli’s craft,  
 Which angel piloted to ferry out of pain  
 Those who found work to expiate their wrong  
 The tree alive, precarious in its raft  
 The compass and the rudder’s purpose plain  
 What viewer cannot hear the picture’s song?

+++

I wrote the above in one straight line, with few if any changes. If I re-do it I'll show the edits.  
 Good, bad, or indifferent, it's the canzone for this chapter!

Surprisingly or not, the greatest obstacle I'm facing with this book is that I'm behind on the oil paintings. I've done basically none, beyond getting the first paper prepared and making the tiniest mark on it in February just so I didn't go two full months behind. My goal is to finish three before the end of this chapter's month which is a little bit nuts. In any case, we shall see. It was the equinox yesterday, of spring, which I think relates to the *Commedia* but I'm not certain. There are a lot of references to astronomy, physics, optics, and other scientific themes in the *Commedia* so we would do well I think to understand the poem as in many ways an encyclopedic portrayal of all human knowledge in an ethical frame. The ethics are of course important, but the mention of all the disciplines is too, it's novel, and is done in the vernacular as if to say "we all have a need for these questions, and for research, understanding, and progress." *Convivio* spells it out absolutely: those with good knowledge should share it with anyone who is interested, not just the wealthy or privileged. Knowledge and virtue are not about hoarding, or one might say, ethnonationalism.

One aspect about Dante's message, I think, is that he called for unity. He thought humans were simply allowing their own vices, habits, and tendencies to lose their tempers to damage the prospects of peace and virtue. So many of the pits of Inferno that he walks past are filled with people who hurt other people, the community, out of nothing more than appetites gone out of control. There's a very powerful message being delivered here: that our vices are the cause of misery and strife. He does not absolve anyone from critique – neither church nor state are excused. His context of course was Italy under the chaos of all the cities at war with each other, but the message extends to the whole world (as we see in his writing *De Monarchia*). It's as if he is saying that our destiny and the gift we've been given

is the power to live in peace and justice with all people; we just fritter it away due to lack of effort, honesty, fairness, and the like – common-sense decency. He doesn't even excuse himself, in the slightest, and describes the start of the journey of the poem as being lost in a dark forest. Think of this as writer's block perhaps; or just as despair, whatever dead-end resonates with you. He was stuck in a dead end and didn't know how to get out. So what did he do? He asked for help from poetry, and by the grace of Beatrice, Virgil, and many others, he got the help he needed to get out of the quicksand. It wasn't an instant or easy fix. He had to work very hard for a very long time with basically no pay to get out of the ditch and to the end of the poem. He had been banished from his city, and even had to write a book explaining why he looked so run-down and ragged everywhere he went from town to town depending on the hospitality of others. That book was *Convivio*, *The Banquet*, where he set out to share what he had gained from his efforts the best he could.

We will each have our own sense of what kind of a person Dante was based on the poetry of the *Commedia*. My impression is obviously fogged and blurred because I don't speak hardly any Italian. There are some things he said that will make many people of today recoil, but I think it would be fair to give him some benefit of some doubt (though that decision too is up to everyone). My sense is that he was a rather stoic and serious person, who felt that he had a very serious job to do which was to try to write some really good poetry and books, that would last through time, some in Latin but absolutely the main poem in Italian. So in this regard his true mission was to be a teacher, and that is how I read his efforts.

As to some of the things he condemned, I think one example of sexual mores is illustrative in that he puts some of his best friends in a state of punishment on such grounds. This could be interpreted as brutal cruelty on his part, but I would venture to say that he in some matters accepted the given laws of his time and did not see his role to be re-writing them all. (This is just practical reality after all – he had zero power over laws and rules, being just a poet wandering in exile.) He therefore

echoed the laws he thought had to be echoed, even when he may have had a few differences, but sometimes couched his leniency or sympathy for those being punished in very indirect language or imagery. He even mentions at one point that people can be plucked out of punishment at the drop of a hat by grace, and it is not our place to say who is evil or presume to know how punishment or reward is decided. This won't convince everyone of what I see as Dante's liberality and progressive outlook, but I wanted to clarify a bit where and why I see it or at least think I do.

The image of the tree in the boat that the dog is sailing toward the eagle is an interesting one. I read that it is an olive tree, which I am not able to distinguish from any other tree but it would make sense. A tree of peace, sustenance, and historic symbolism would make sense. (Leonardo specified at one point that Envy should be allegorized as being pierced by laurel and myrtle, which is to say, the herbs signifying success and poetry respectively. So he knew his plants and herbs and the symbols thereof.) Yet Leonardo's metaphors are never, ever, tic-tac-toe. Think of a swirling river with many obstacles and twists, sediments, gravels, banks collapsing and forming, flood and drought, and how different that is from a line of water drawn with a blue crayon. That is how the tree in the boat works, I think. It probably has elements of twenty metaphors in it, and connections of each to half a dozen more, and that is how the matrix gets woven. It's the Tree of Estates, but also not – there's no skeleton shooting arrows at it. It's the Tree of Knowledge, but there's no Adam or Eve. It's the tree of human efforts to communicate with the divine – art, science, religion, nature – which allows the ship to sail but also a superfluous foliage sitting there like cargo or any fragile removable. We see Fortune's tiller, but why a dog, given *Inferno* VII.67-96? And so on. There are a good twenty conventional stories being voiced in parallel here, like a fugue or canon, closely akin to Bach and I would also argue, necessarily, Gödel. Hence we are back to Santillana and Calvino, Cavalcanti, Gadda, Hofstadter, and Montale -- all of our friends from book one. And so it goes, as my friend likes to say. Or to phrase it a bit differently,

Leonardo was medieval without being medieval, modern without being modern, a scientist without being a scientist, and an artist without being an artist.

But to try to have some decency and clarity, please grant me some forgiveness that I have not clarified the title of this book. I'll try to do this in the next chapter, so as to prepare for the next after that. I will also strive to bring in more real facts about Dante, in the spirit of *Convivio*, since we do not all have time to read a real book on real paper. Quotations and references are really fun. I may also try to copy in some of the images of Fortune and trees in boats and banderoles that are floating in my mind all day every day – they are almost certainly public domain, and if not, at least private domain.

To close this rambling shaggy chapter of a chapter I'd like to cite Joost Keizer from a 2012 article about allegory in Leonardo:

"Leonardo organises perception as the discovery of similitude, unveiling nature in its original connectedness with culture, and *revealing culture as something similar to the things we observe in nature* [italics mine]."

"Leonardo the fabulist did not imitate nature as we perceive it with our eyes; *he organised the world for humanity by establishing analogies among unlike things, revealing for us the similarities between dissimilar things*" [italics mine].

"Leonardo's allegories were a path back to a world in which the image operated like the word, a path past Landino's splitting of the image in the two modalities of allegory and history, a path that led back to Dante. The allegories Dante encountered in Purgatory evidenced a remarkable unity between *verba* and *res*. They marked a moment before art had emancipated itself from text, when image and allegory still stood united."

[https://www.academia.edu/3186326/\\_Leonardo\\_and\\_Allegory\\_Oxford\\_Art\\_Journal\\_35\\_2012\\_433\\_55](https://www.academia.edu/3186326/_Leonardo_and_Allegory_Oxford_Art_Journal_35_2012_433_55)

And this from Max Marmor, from 2005:

"If Dante's narrative style had a perceptible influence on Leonardo the writer ... one may reasonably wonder whether that influence also left traces in his paintings, and perhaps especially in his later works. We have seen that the late, bewitching drawing of the Pointing Lady at Windsor Castle, along with a series of related drawings, can be persuasively associated with Dante's Earthly Paradise episode. She is Matelda and points the poet's way forward. Her characteristic gesture and motion remind us of Leonardo's striking concentration, in his late paintings, on single figures who similarly engage the beholder directly, through their glance and gestures, powerfully drawing the viewer into the painting.... These paintings are, in a meaningful

sense, composed in the 'first person'; *they make the beholder's experience the real subject of the work*" [italics mine].

[https://www.academia.edu/1050327/\\_Par\\_che\\_sia\\_mio\\_destino\\_The\\_Prophetic\\_Dream\\_in\\_Leonardo\\_and\\_in\\_Dante](https://www.academia.edu/1050327/_Par_che_sia_mio_destino_The_Prophetic_Dream_in_Leonardo_and_in_Dante)

Graphic 3



Web log 4

## The Mindful Mona Lisa: Allegory and the Transverse Fabric of Narrative

By Max Herman  
Thursday, 04/01/2021



The rather odd, yet highly finished, *Allegory with Dog and Eagle* is one of Leonardo's latest and most enigmatic works. It is often interpreted (as in [Panel 48](#) of Aby Warburg's fascinating *Mnemosyne Atlas*) as a reflection on the theme of the Roman deity [Fortuna](#) or Fortune.

Since the eagle and boat are close copies of Botticelli's illustrations of *Purgatorio IX* and II-[III](#), respectively, it makes sense to consider Dante's [reflections](#) on Fortune's role in human events as a possible influence on Leonardo's intended design of the work.

The [rudder](#) and ship's wheel were standard symbols of Fortuna in medieval and Renaissance [eras](#), but in this drawing it is a faithful canine that steers and a [compass](#) rather than a random wheel of chance (such as [Durer's](#) ) that guides. These changes are uniquely Leonardo's, and may reflect a developing belief at the start of the modern age that while chance is always a factor human efforts can shape the future.

The tree as mast is often featured in medieval images of the “[Ship of Fools](#).” It can represent many things: the [Tree of Estates](#) that supports the social classes of nobility, peasantry, etc., the flourishing or withering of institutions or individuals (as in *Purgatorio* [XXXII-XXXIII](#)), or even longevity and knowledge as such. Since the compass is fixed by a perfect beam to the eagle, which often represents political justice and stability, it is plausible to see references to Leonardo's need to leave Italy in his final years to seek safety in the French court.

Since the work is untitled, and never explained by Leonardo, one can imagine it being an [allegorical](#) communication to [Francis I](#) of what sanctuary meant for the artist-scientist, and perhaps most importantly, for the legacy and future of his complete oeuvre (much of which, including the *Mona Lisa*, would belong at Leonardo's death to the French nation).

In this reading the tree could represent Leonardo's wish to “transplant” his lofty goals, humbly of course, out of the civil strife which left him insecure in his home country. It was exactly such a transfer of science, art, and cultural prestige which Francis I sought in his offer of refuge to Leonardo, in hopes of nurturing similar achievements in France. The drawing would have made a fine gift of thanks for Leonardo to present to his new host on arrival (or a compelling request to be sent in secrecy).

Thus we see a complex layering and interweaving of messages here: Leonardo's appreciation of Francis I's patronage, his view of the legacy of his work, and even a self-image of canine diligence as opposed to either random chance or leonine triumph. The references to Dante add many additional [threads](#), including the Exodus story of flight from servitude.

Yet we can also see a poignant, highly personal [meditation](#) on hope and perseverance being expressed by Leonardo as he imagined the final phase of his career. How he viewed – and wanted posterity to view -- his life as an artist and scientist subject to continual chance and change, the contrast of patient effort with lofty visions of progress, and the care he felt for an enterprise of which he was only a temporary steward all combine in a single image of great complexity, depth, and beauty.

Next blog: translation and transformation

## Essay 4

Here is a new revision of my canzone from chapter 3:

Did Leonardo hide a meaning in  
 The dog and eagle allegory drawn  
 With such discretion, moving like a pawn  
 The image forward, silent in the din?  
 The dog is humble, earnest, wise; has been  
 A long while aiming toward a dawn,  
 Is not in anger, nor does servile fawn  
 At crowns or light, the world's all-ruling djinn.  
 The boat is shaped like Botticelli's craft  
 With angel pilot, ferrying out of pain  
 Those who found work to expiate their wrong,  
 The tree alive, precarious in its raft,  
 The compass and the rudder's purpose plain.  
 What viewer cannot hear the picture's song?

+++++

Hi all,

Re chiasmus, it has remained a basic pattern for my understanding of the ML. It was of course interesting to learn that it underlies all of Dante's *Commedia*. Yet like a fabric, it isn't one big crossing like a cosmic x-y axis, but a whole lot of crossings, a matrix or cloud of them, in literally or metaphorically all dimensions.

Here is my chiasmus blog from last year, featuring one of Leonardo's many knot images, as a visual comparison:

[https://\[blog address\]/2020/10/29/the-mindful-mona-lisa-consistency-chiasmus-and-resilience](https://[blog address]/2020/10/29/the-mindful-mona-lisa-consistency-chiasmus-and-resilience)

In the *Last Supper*, the x-y axis is very pronounced, and centers on Christ's right temple, with all of the turbulent sub-cycles dispersed around it along the x-axis in 2D.

[https://en.wikipedia.org/wiki/List\\_of\\_works\\_by\\_Leonardo\\_da\\_Vinci#/media/File:Leonardo\\_da\\_Vinci\\_-\\_The\\_Last\\_Supper\\_high\\_res.jpg](https://en.wikipedia.org/wiki/List_of_works_by_Leonardo_da_Vinci#/media/File:Leonardo_da_Vinci_-_The_Last_Supper_high_res.jpg)

However in the later ML, there is no real center, just a lot of rotations and intersections (the neckline pattern is similar to the knot pattern and the tablecloth of the *Last Supper*) to suggest

that the entire fabric of the cosmos is transverse with only relative "centers." The only center, such as it is, is the ML's left pupil, which is kind of "the center of nothing," i.e., perception (both the ML's and ours, being linked) is a kind of center but a totally relative and dispersed one. The space is very 3D, and because of its meandering and unstable shifting also has a fundamental 4D axis.

[https://en.wikipedia.org/wiki/Gherardini\\_family#/media/File:La\\_Gioconda.jpg](https://en.wikipedia.org/wiki/Gherardini_family#/media/File:La_Gioconda.jpg)

In Leonardo's final painting, of St. John, the center is almost lost completely in darkness and vagueness. The most we see is eye contact with St. John, him pointing, and then the almost invisible crossing he points to. (This makes the painting a very grim kind of a warning in tone, it seems to me.)

[https://en.wikipedia.org/wiki/List\\_of\\_works\\_by\\_Leonardo\\_da\\_Vinci#/media/File:Leonardo\\_da\\_Vinci\\_-\\_Saint\\_John\\_the\\_Baptist\\_C2RMF\\_retouched.jpg](https://en.wikipedia.org/wiki/List_of_works_by_Leonardo_da_Vinci#/media/File:Leonardo_da_Vinci_-_Saint_John_the_Baptist_C2RMF_retouched.jpg)

Just looking at the St. John again while copying the link, there is another center I hadn't noticed: St. John is pointing with his left hand directly to the center of his sternum. This says a lot, perhaps.

If this pictographic interpreting seems too far a stretch, see Leonardo's images of rebuses, i.e. talking in pictures:

[https://commons.wikimedia.org/wiki/Leonardo\\_da\\_Vinci\\_catalog\\_raisonn%C3%A9,\\_2003#/media/File:Leonardo\\_da\\_Vinci\\_-\\_RCIN\\_912692,\\_Pictographs,\\_and\\_an\\_architectural\\_plan\\_c.1490.jpg](https://commons.wikimedia.org/wiki/Leonardo_da_Vinci_catalog_raisonn%C3%A9,_2003#/media/File:Leonardo_da_Vinci_-_RCIN_912692,_Pictographs,_and_an_architectural_plan_c.1490.jpg)  
[https://commons.wikimedia.org/wiki/Leonardo\\_da\\_Vinci\\_catalog\\_raisonn%C3%A9,\\_2003#/media/File:Leonardo\\_da\\_Vinci\\_-\\_RCIN\\_912692,\\_v,\\_Pictographs,\\_and\\_an\\_architectural\\_plan\\_c.1490.jpg](https://commons.wikimedia.org/wiki/Leonardo_da_Vinci_catalog_raisonn%C3%A9,_2003#/media/File:Leonardo_da_Vinci_-_RCIN_912692,_v,_Pictographs,_and_an_architectural_plan_c.1490.jpg)

Looking up the Italian word for "crossing" or intersection I found "*il traversata*," which is of course very evocative on all levels. The verb is "*attraversare*," also evocative if only in terms of poetry.

Looking up "traverse" for its etymology in English, one finds a treasure trove of interesting material (including the medieval term for crossing, as of a bridge or river). It derives from "transverse," the more formal Latin for the same idea ("*traversus*" is vulgar Latin for "*transversus*"). "*Transversus*" has a rotational connotation, "to turn across."

<https://www.etymonline.com/word/traverse>

[https://www.etymonline.com/word/transverse?ref=etymonline\\_crossreference](https://www.etymonline.com/word/transverse?ref=etymonline_crossreference)

Transverse, like itself, covers a lot of spheres of knowledge (such as anatomy, geometry, combinatorics, and even category theory as "transversal"). A very interesting one I found today was "transverse wave," which is the type of wave light is (as opposed to longitudinal, which water waves are).

<https://en.wikipedia.org/wiki/Transverse>

<https://en.wikipedia.org/wiki/Transversal>

<https://en.wikipedia.org/wiki/Transversality>

This got me reading about Einstein, who I haven't had the discipline to study yet, and I found this quote:

"Special principle of relativity: If a system of coordinates  $K$  is chosen so that, in relation to it, physical laws hold good in their simplest form, the same laws hold good in relation to any other system of coordinates  $K'$  moving in uniform translation relatively to  $K$ . [16]"

This really struck me as similar to category theory: a translation of coordinates between two fields, like say two  $10 \times 10$  matrices of dots. If you think of each dot as a disc with an x-y axis, and each dot able to move somewhat independently of the others, you get a kind of "distributed axiality" like a fabric. The rules of "fabricness" of the two matrices are the same rules, even if like two adjacent flags blowing in the wind they have different configurations at a given moment.

The phrasing of Einstein's theory is also evocative, both parts (the relativity and the speed of light part):

"The Principle of Relativity – the laws by which the states of physical systems undergo change are not affected, whether these changes of state be referred to the one or the other of two systems in uniform translatory motion relative to each other."

It struck me how he uses the concepts of physical systems undergoing states of change (i.e., metamorphoses or transformation) and translation. (Translation and transformation are the two theme words I chose for Thursday's blog, before reading this about Einstein, for the next blog and chapter 5 of the Dante book now about 25% done.)

[https://\[blog address\]/2021/04/01/the-mindful-mona-lisa-allegory-and-the-transverse-fabric-of-narrative](https://[blog address]/2021/04/01/the-mindful-mona-lisa-allegory-and-the-transverse-fabric-of-narrative)

Metamorphoses via Ovid, and translation by way of words and math, were huge metaphors and thematic foundations for both Dante and Leonardo. As just one example, check this odd passage from *Paradiso* I:

[Dante speaking as narrator, 70-72, Mandelbaum translation:]

Passing beyond the human cannot be  
worded; let Glaucus serve as simile—  
until grace grant you the experience.

Here is the original Italian:

70 Trasumanar significar per verba  
71 non si poria; però l'esempio basti  
72 a cui esperienza grazia serba.

A different translation, by Ciardi:

How speak trans-human change to human sense?  
Let the example speak until God's grace  
grants the pure spirit the experience.

Here's another, the Longfellow, which is a bit odd:

To represent transhumanise in words  
Impossible were; the example, then, suffice  
Him for whom Grace the experience reserves.

The word "*esperienza*" is of course key here, since that is what I think the ML is a portrait of.

But my aim for now is to focus on the aspects of transformation and translation, which are here being set forth by Dante in the first Canto as the basic building blocks of *Paradiso*, which is really just "the place where truth is seen" as opposed to *Inferno* (suffering in ignorance) and *Purgatorio* (working one's way out of ignorance toward clarity). The three-part universe of the *Commedia* doesn't have to be reduced to a simplistic restatement of medieval dogma on punishment, or even labeled as theology. It is also a metaphor on the scientific method itself (which is completely interwoven for both Dante and Leonardo with aesthetic method) and hence an early assertion, if not the original and first, of the defining statement of modernity i.e. that science and ethics are not incongruent. *Inferno* is a place of writhing in rather noxious punishments and unclean waste; *Paradiso* is all about geometry, physics, light, truth, happiness, and orderly architecture.

Yet the rest of *Paradiso* I goes even further to set the basic rules of *Paradiso*. It's a long excerpt, apologies for that, but it really is all about relativity and the exceptional consistency of light as they form the basis of human experience.

Both Dante and Leonardo both equate light with the Divine, but we need not reject them as mere dupes and propagandists. Such equivalence was beyond mandatory in their days. (Leonardo also equated the divine with "forza" or force, the impetus behind everything including light, which can be understood as "energy," and he characterized this forza very agnostically at times as "divine or otherwise.") Dante and Leonardo are both trying to establish science on newly legitimate footing by couching the universal constancy of light in an acceptable context by associating it with the universal constancy of the Divine. This opens up a ton of metaphoric language in which they can "talk science" without appearing to disrespect the ecclesiastical authorities or alienating the wider public. Martin Kemp, the most famous Leonardo expert today, has a new book out this year about Dante and light which argues that most of the European tradition of painting that deals with light originated in Dante.

Mandelbaum translation, *Paradiso* I.70-142

Passing beyond the human cannot be  
worded; let Glaucus serve as simile—  
until grace grant you the experience.

Whether I only was the part of me  
that You created last, You—governing  
the heavens—know: it was Your light that raised me.

When that wheel which You make eternal through  
the heavens' longing for You drew me with  
the harmony You temper and distinguish,

the fire of the sun then seemed to me  
to kindle so much of the sky, that rain  
or river never formed so broad a lake.

The newness of the sound and the great light  
incited me to learn their cause—I was  
more keen than I had ever been before.

And she who read me as I read myself,  
to quiet the commotion in my mind,  
opened her lips before I opened mine

to ask, and she began: "You make yourself  
obtuse with false imagining; you can

not see what you would see if you dispelled it.

You are not on the earth as you believe;  
but lightning, flying from its own abode,  
is less swift than you are, returning home.”

While I was freed from my first doubt by these  
brief words she smiled to me, I was yet caught  
in new perplexity. I said: “I was

content already; after such great wonder,  
I rested. But again I wonder how  
my body rises past these lighter bodies.”

At which, after a sigh of pity, she  
settled her eyes on me with the same look  
a mother casts upon a raving child,

and she began: “All things, among themselves,  
possess an order; and this order is  
the form that makes the universe like God.

Here do the higher beings see the imprint  
of the Eternal Worth, which is the end  
to which the pattern I have mentioned tends.

Within that order, every nature has  
its bent, according to a different station,  
nearer or less near to its origin.

Therefore, these natures move to different ports  
across the mighty sea of being, each  
given the impulse that will bear it on.

This impulse carries fire to the moon;  
this is the motive force in mortal creatures;  
this binds the earth together, makes it one.

Not only does the shaft shot from this bow  
strike creatures lacking intellect, but those  
who have intelligence, and who can love.

The Providence that has arrayed all this  
forever quiets—with Its light—that heaven

in which the swiftest of the spheres revolves;

to there, as toward a destined place, we now  
are carried by the power of the bow  
that always aims its shaft at a glad mark.

Yet it is true that, even as a shape  
may, often, not accord with art's intent,  
since matter may be unresponsive, deaf,

so, from this course, the creature strays at times  
because he has the power, once impelled,  
to swerve elsewhere; as lightning from a cloud

is seen to fall, so does the first impulse,  
when man has been diverted by false pleasure,  
turn him toward earth. You should—if I am right—

not feel more marvel at your climbing than  
you would were you considering a stream  
that from a mountain's height falls to its base.

It would be cause for wonder in you if,  
no longer hindered, you remained below,  
as if, on earth, a living flame stood still."

Then she again turned her gaze heavenward.

I learned today that a major reason Einstein thought up relativity was because the idea of "aether" didn't hold up experimentally. Aether was of course an idea well known to the ancients, and therefore Dante and Leonardo. So it's undeniable they were trying to operate in the same kind of conceptual space around light and its relation to the other laws of physics.

'The Principle of Invariant Light Speed – "... light is always propagated in empty space with a definite velocity [speed]  $c$  which is independent of the state of motion of the emitting body" (from the preface).[p 1] That is, light in vacuum propagates with the speed  $c$  (a fixed constant, independent of direction) in at least one system of inertial coordinates (the "stationary system"), regardless of the state of motion of the light source.'

I never read this phrasing of the Theory of Relativity before, and never knew that a constant speed for light -- hence the " $c$ " I guess -- was half of it. The two together kind of create a constant within a constancy, and this is supposedly what holds the universe together. A kind of transverse relation, but not like a giant x-y axis with an origin at the middle of all existence. It's

more dispersible than that, with lots and lots of particles and waves and differentiation, lots of turbulence as well as stable flows and rotations, etc.

The visual aspects of how Einstein wrote down the theory are I guess what are striking to me (as are the diagrams and animations of transverse waves in Wikipedia), not least because these are the same visuals that Leonardo and Dante used. Not that they knew Einstein; but Galileo got a lot his ideas from Leonardo (which meant ignoring his professors' authoritative works) and I just learned today that Galileo had his own theory of relativity. Therefore I don't think it's out of line to think of a germinal kind of suspicion or curiosity in Leonardo and Dante about what Einstein wrote down.

To try to find a frame of relevance for all this, how Einstein might relate to art and poetry, there is the idea of light as information (whether in words or in images). Since light carries information, its universal constancy suggests a unique kind of role for information in physics. I know \_\_\_\_\_ has mentioned information theory, which I also have yet to study. Simply put, I believe that Dante and Leonardo are saying that art and science have to be able to appreciate the unique nature of light in order to understand how information works. This is a new idea for me, but more or less what I think each was doing. Then they both went on to think about how both science (experiment) and art (expression) have a role in the imagination, which allows perception and understanding of information. This is the "modern" side of Dante and Leonardo, but of course they were not pure moderns (if there ever was such a thing).

This only matters on a practical level, i.e. for my book and blog-writing, as a way to establish the science context for Dante and how it relates to both his poetry and Leonardo's painting. Unfortunately for this effort, people associate Dante with religion even though he's about a lot more than that -- kind of unifying the disciplines. This is a big problem, because Leonardo knew Dante like the back of his hand and referenced him constantly in visual shorthand. Ignoring Dante's influence on Leonardo would be like trying to read T.S. Eliot or Milton without Shakespeare -- it's just not possible.

So I need to find a way to look at Dante as a science writer not a theologian. Leonardo has a much more untheological persona and therefore one can more easily say that writing about him is not about theology; he is universally inoffensive on religious grounds, neither rejecting it nor overly insisting on it. This is of course an odd kind of stretch, because his paintings are mostly religious, but it's made easier by all of his science notebooks and also long practice. Dante isn't yet thought of that way, almost certainly by design.

Anyway, no need to read or reply to such a book-length email, but any thoughts about transverse/transversal etc. would be most helpful!

All best,

Max

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Here is the new canzone for chapter 4:

Is hell a thought, a feeling, or a place?  
 The thing it might resemble most is time  
 When out of joint and suffering, like a rhyme  
 Without a counterpart, adrift in space.  
 It lingers like a half-forgotten face  
 We dread, or stairs we lack the nerve to climb,  
 Or nervous memory about a crime  
 That tries to visualize not being the case.  
 Yet most of all it is the frame of mind  
 That freezes when it faces sure demise  
 Forsaking change and freedom to adapt,  
 A prideful weakness waiting for a sign  
 To tell it what to do, fixated eyes  
 That cannot flow or move forever trapped.

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I found this little fragment in Wikipedia about Dante's use of the unique word "*trasumanar*":  
 "*Trasumanar* is another *hapax legomenon* mentioned in the *Commedia* (*Paradiso* I, 70, translated as  
 "Passing beyond the human" by Mandelbaum)."

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Sometimes it seems like the planet is burning itself up. There are so many adverse  
 consequences of human choice accumulating, they almost seem to have seized the majority. The field  
 of our freedom to choose well sometimes seems to have narrowed. We can't undo the past, but its  
 results constrict us more and more.

This is how Leonardo put it:

Animals will be seen on the earth who will always be fighting against each other with the  
 greatest loss and frequent deaths on each side. And there will be no end to their malignity; by  
 their strong limbs we shall see a great portion of the trees of the vast forests laid low

throughout the universe; and, when they are filled with food the satisfaction of their desires will be to deal death and grief and labour and wars and fury to every living thing; and from their immoderate pride they will desire to rise towards heaven, but the too great weight of their limbs will keep them down. Nothing will remain on earth, or under the earth or in the waters which will not be persecuted, disturbed and spoiled, and those of one country removed into another. And their bodies will become the sepulture and means of transit of all they have killed.

O Earth! why dost thou not open and engulf them in the fissures of thy vast abyss and caverns, and no longer display in the sight of heaven such a cruel and horrible monster.

"Of the Cruelty of Man"

This reflects quite a bit of the character of Hell, to my way of thinking. All good destroyed irrevocably, with no possibility of repair. It also demonstrates with absolute certainty that Leonardo understood limit theory, i.e., the calculus: "what happens when more and more repetitions of an operation accumulate through time?" He knows the simplest way to say this: "Many will...."

Therefore -- and I must ask your pardon for discussing matters where faith, history, politics, and art meet, because these matters seem most of all to trouble the human persona of today -- Leonardo foresaw Hell, and he foresaw exactly where we are today, perhaps more vividly seeing and comprehending the world today than those of us living in it like par-boiled frogs as it were. That Leonardo is portrayed as a simple happy pious producer of useful beauty is a deprivation of the worst and most cynical sort. Let the man speak, damn you!

Yet permission to speak is not a power most of us can grant or remove. It's there or it isn't. We can choose to listen, or not, sometimes. I choose to listen now, and for as long as I can breathe.

What causes Hell to accrue? Innumerable acts of unconscious habit, ignorance, and appetite. None of us is free of these wrong paths, and Leonardo knew he himself was not. Yet we are always required to do the best we can. We are always able to do our best, even when we fail.

In the *Commedia*, Dante begins it all by saying "halfway through my life, I was lost in a dark forest. I had left the True Way and had nothing, no hope and no sense of direction. I saw a high

mountain which still had some sun shining at the top of it, and tried to climb up it. A Leopard, representing Fraud, stopped my way first. Then a Lion, representing Violence, joined the Leopard. Then a starving Wolf, Incontinence, scared me witless and chased me back down to the forest. I was utterly defeated and hopeless. Then the ghost of my favorite poet appeared and said: 'You can't get out that way. Incontinence – doing too much or too little – has destroyed millions, and rules your society, and dominates well-meaning people in every sphere of life. Your poetic inspiration sent me to help you, and I tell you to follow me and listen to me. We've got to take the long cut but we'll get there eventually.'

That sums up a huge amount right there. But notice what Dante – I mean Virgil -- said to fear: the starving Wolf. He didn't mention the Leopard and the Lion. They are the easy outs. It's the Wolf, omnivorous and never-sated, that rules humanity.

Leonardo saw this as clear as day: Hell is created by our many little failures to be aware, to apprehend our surroundings, and make choices in line with our best conscience. Therefore Leonardo also wrote this:

Many will there be who will give up work and labour and poverty of life and goods, and will go to live among wealth in splendid buildings, declaring that this is the way to make themselves acceptable to God.... An infinite number of men will sell publicly and unhindered things of the very highest price, without leave from the Master of it; while it never was theirs nor in their power; and human justice will not prevent it.

"Of Selling Paradise"

Now some of my dear readers will come to detest me now. They will ask: whose side are you on, anyway? Are you on our side? Admit! Admit! Frankly I see no reason I should answer your question if that's the tone of voice you're going to use. Yet I will agree that many people recoil from any conversation or thought that mentions those realities where faith, history, politics, and the creative arts merge and blend.

What I would like to offer is this: how about we take a simple inclusive approach, and try to behave at least for a short jiffy as citizens of the tribe of all tribes. I'm not asking you to renounce your tribe, and I'm not renouncing mine (even if I prefer often not to advertise it which is of course one of the more important admonitions in all history, if a subtle one). In pre-monotheistic ancient Greece, sometimes the highest being was called "the Good." In some indigenous traditions, it is the "Great Spirit" which means "the set of all spirits." If you cannot admit any discussion of topics like this right now, I do ask that you try to read on whether it be me or someone else. We can't get over our fears by ignoring them – there's a fiery fire we have to face, and it burns.

I'm running out of time, as you might have guessed. All I really mean to say is that Leonardo read Dante as sure as Keats read Shakespeare, and you can't have one without the other. Neither were scribes, not by half, but they spoke the language and what's most important is they listened, and they heard. If we reject Dante, Leonardo becomes invisible. If we over-protect Dante, needlessly, from any disputation or evolution by Leonardo we lose Leonardo in the fog. And who are you to say that Dante has no need of Leonardo? Just ask yourself: do we have such a superabundance of solutions to the dilemmas of human imagination that we can afford to be squeamish about listening to Leonardo even when he talks about Dante? I have no authority to judge you if that is your choice. Just allow me to mention that if you do so, you run the risk of defending not Dante, and certainly not Leonardo, but simple tribalism qua tribalism. In other words, you destroy all and defend nothing much less the tradition you claim so fervently to love.

Yet enough preaching from one such as me.

I read Dickinson's poem "Beauty Be" for the first time this month, it relates to all this. And Frost's "A Prayer in Spring"; I'll read that now. "Ode to the West Wind" captures something for me too. There was some kind of encompassing image eluding me earlier this week, after a dream I think, i.e., in

the morning one morning. It was something like “infinite curves all intersecting,” which I couldn’t quite recall if it was a quote from Leonardo, or a quote about Leonardo, or something about Einstein that related to light and Leonardo, I’m not sure. The relationship between light and space-time I think was part of it. Possibly tied to Pascal’s funny figure “a single point of no dimension moving at infinite speed in a finite universe.” It made me think, “math alone is insufficient and inaccurate without observation, which is only possible through light.” Still haven’t gotten my copy of Kemp’s Dante book yet. Observing connections is the key to observing change, and the ML says “you miss the connections.” If you’re not processing the information, if it’s all a monolith, then it’s not really information at all but its opposite.

As Keizer wrote in 2012, Leonardo shows us the similarity in difference, even applying this to nature and culture’s difference.

Leonardo wanted to tell us that we have to transport ourselves across bridges, or guide our own craft, or both. The two falling halves of the world hold each other up. Dante used a crazy image of falling through the middle of the planet, where Satan was frozen in ice, then climbing up Satan’s leg on the other side where gravity had reversed. Then he and Virgil followed the spiral path of Lethe, which grooved a spiral in the rocks, back up to the light.

A bridge is like a morphism, a movement, a transit; somewhat like a door I suppose.

Apropos of nothing, I just got two items delivered to me by the river of information we all enjoy: one is an article from fabulistic Quanta magazine about how the brain “rotates” memories to protect them from incoming experiences. This is relevant to the transverse question, entities or processes interweaving (or not) in phenomena and in the mind, at least visually or metaphorically. Scientifically, I can’t say, as I just got the article and haven’t read it. The other item is Kemp’s book on Dante and light.

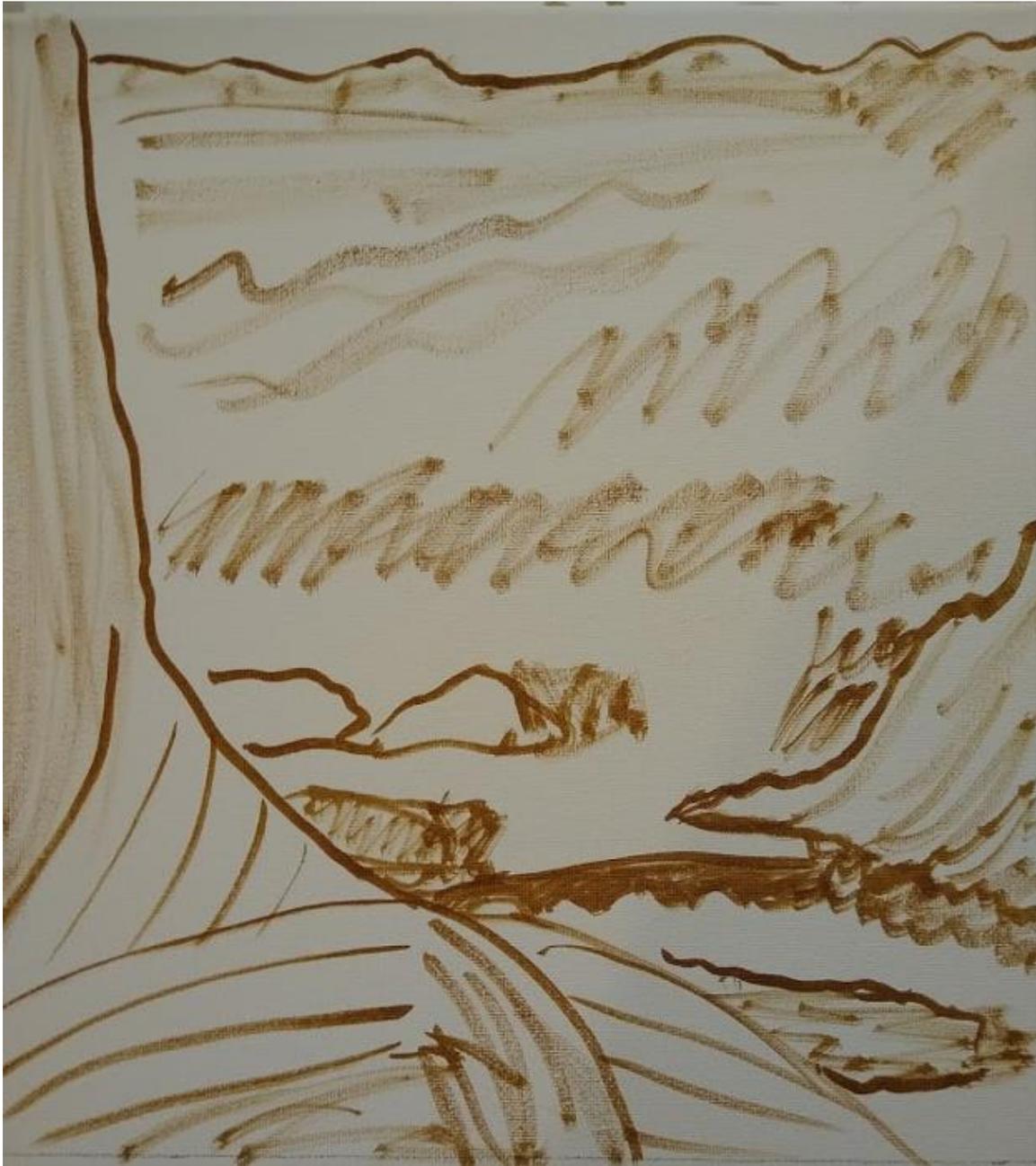
An item to also add: given Twain’s admonition regarding opinions, i.e. that they are governed mainly by where and how we get our cornbread (or think we do), I have to ask myself “who has an

interest in considering a hypothesis about the bridge, a la #seethebridge.org, and who has an interest in not considering it?" This I have to sort out, or I may find myself bashing my head against walls indefinitely.

Also read in a recent article was the Global Trends 2040 intelligence estimate which speculates about a "Renaissance of Democracies" as one of its five plausible scenarios for the next twenty years. Can we help bring that to being, if we learn from the "turn" or turns which occurred around 1500 CE?

The reference I almost forgot was to the idea that either Leonardo or Norbert Wiener would stop working altogether and spend four hours just thinking of all their previous work, as of a whole corpus. This greatly supports the idea that they were knowingly building a network in time, this Norbert or Leonardo I think I'm remembering. Maybe Vasari said it.

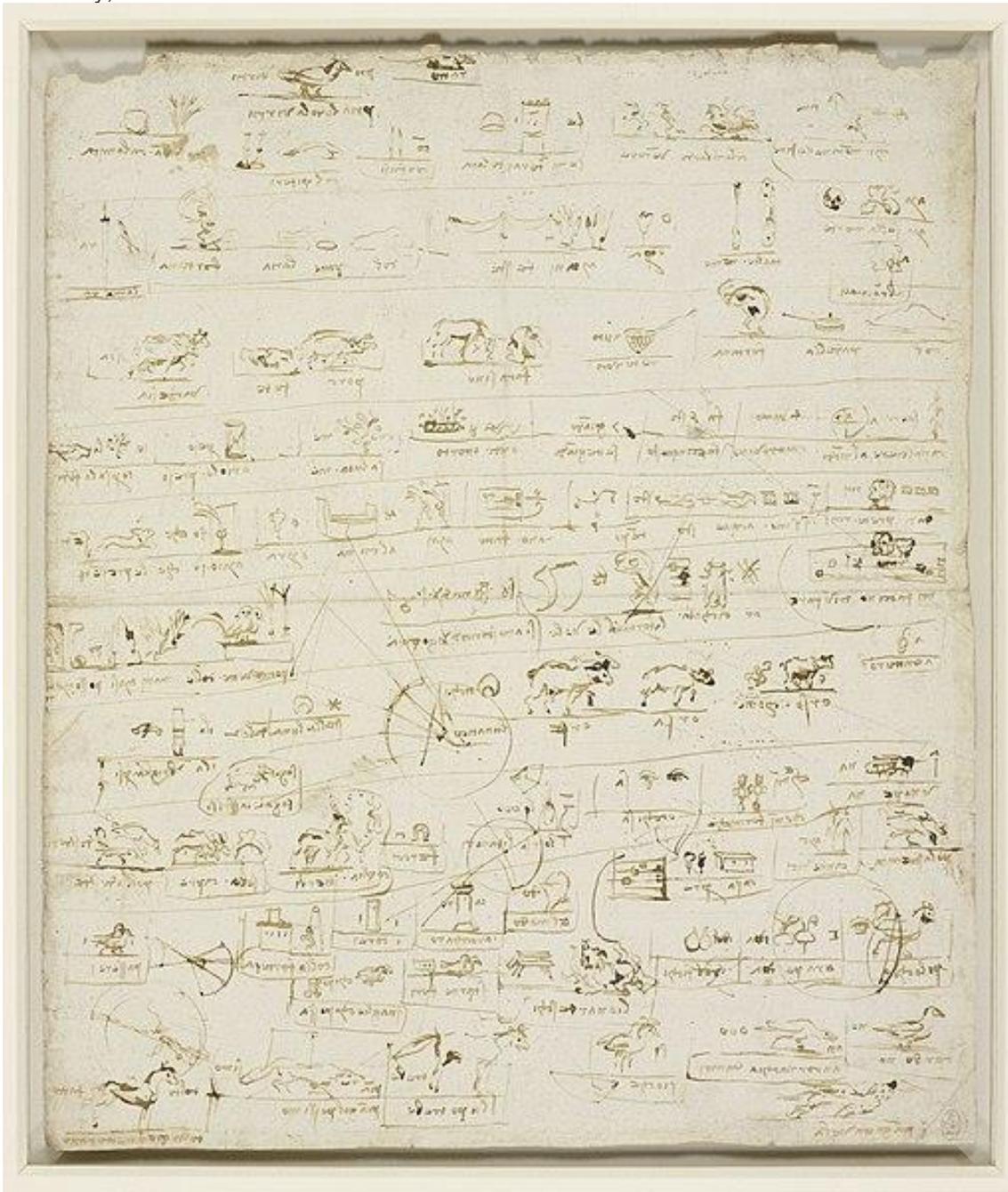
Graphic 4



Web log 5

# The Mindful Mona Lisa: Translation and Transformation

By Max Herman  
Thursday, 05/06/2021



The Italian Renaissance period exemplifies the transition from the [medieval](#) era to the modern. All spheres of human activity were affected, from the arts and sciences to politics, economics, and philosophy.

[Leonardo](#) (1452-1519) was a major figure in this transition but there were many others. The concept of a “[Long Renaissance](#)” divided into an “Early” period (1300-1460) and a “High” period (1460-1543, or even 1600) illustrates the great depth and extent of the changes that occurred throughout Italian culture, society, and institutions.

An Italian “Proto-Renaissance” 1250-1300 is also widely accepted, and this period nurtured both [Giotto](#) in painting and his friend and colleague [Dante](#) in poetry. In a sense, the fundamental process of the Renaissance was to “[translate](#)” the artifacts and ideas of classical antiquity into contemporary Italian life, transforming both into something simultaneously historical and new. Dante transformed literature by writing in the vernacular rather than Latin, and by integrating ancient writers and ideas into the context of his own time. Giotto transformed painting by evolving it beyond the strict conventions of [Byzantine](#) form to include classical elements of realism, naturalism, and individualized human subjects. The cultural ferment fed by literature and the arts synergistically brought the [sciences](#) to greater prominence.

One way to illustrate translation and transformation is the metaphor of [traversal](#). In the *Commedia* Dante is repeatedly “traslato” (translated) from one afterlife landscape to the next; river crossings mark the different phases of his journey; and he coins the *hapax legomenon* “trasumanar” (trans-human) to describe his poem’s process. Dante uses literary [chiasmus](#), and Leonardo visual, in great profusion. Intersection, [knots](#), and [helix](#) images appear throughout Leonardo’s work (including the *Mona Lisa*), and his science illuminated change processes in geology, river systems, optics, and biology.

The currents of change by recombination to which Dante and Giotto contributed so much momentum pervaded the entire Renaissance. Leonardo’s core methods of observing nature and valuing direct practice in both science and art as highly as theory showed his great respect for both Dante and Giotto and their spirit of renewal by integration rather than simplistic imitation.

As society today faces global challenges of unprecedented severity and urgency, it may be helpful to consider the kind of change dynamics the Renaissance relied upon. Since most [network](#) processes are iterative (both in culture and the natural world), evolving in non-linear and often cyclical

patterns, it may well be that a "second" Renaissance could occur in our own time.

The [Global Trends 2040](#) intelligence estimate forecasts a “Renaissance of Democracies” as its most optimistic potential scenario for the next two decades. Such an outcome will require significant evolutions in world culture to complement strictly scientific or technological advances. The positive transformation and renewal of human imagination is essential to successfully address the crises of the 21st century.

One great milestone defining the modern age, Einstein’s theory of [special relativity](#), uses the concepts of translation and transformation in an evocative way if read in a Renaissance context:

- The Principle of Relativity – the laws by which the states of physical systems undergo change are not affected, whether these changes of state be referred to the one or the other of two systems in uniform translatory motion relative to each other.
- The Principle of Invariant Light Speed – light is always propagated in empty space with a definite velocity  $c$  which is independent of the state of motion of the emitting body.

The interconnected [fabric](#) of changes that unite space, time, matter, and light represent one theme which Dante, Leonardo, and Einstein all have in common.

Next blog: fragments and recombination

## Essay 5

Max Marmor, in his 2005 essay "'Par che sia mio destino': The Prophetic Dream in Leonardo and in Dante," describes Dante being carried to the gate of Purgatory by a giant eagle:

The first of the three prophetic dreams in the *Purgatorio* occurs just before the poet awakens at the gates of Purgatory. Like Leonardo in his ricordo, Dante here employs the distinctive verbal phrase *mi pareva* – indeed he uses it no fewer than five times in this single dream narrative....

Now above and beyond its dependence on the verb *parere* and its reiterated use of the characteristic phrase *mi pareva*, this particular dream sequence obviously shares other narrative elements with Leonardo's "childhood memory." Dante writes, "I seemed to see, in a dream, an eagle poised in the sky, with feathers of gold, its wings outspread, and prepared to swoop. And I seemed to be in the place where Ganymede abandoned his own company, when he was caught up to the supreme consistory; and I thought within myself, 'Perhaps it is wont to strike only here, and perhaps disdains to carry anyone upward in its claws from any other place.' Then it seemed to me that, having wheeled a while, it descended terrible as a thunderbolt and snatched me upwards as far as the fire: there it seemed that it and I burned; and the imagined fire so scorched me that perforce my sleep was broken." Not only is this a prophetic dream the meaning of which is embodied in a bird "poised in the sky ... prepared to swoop"; the aggressiveness of the eagle, about to "strike," is expressly compared to the rape of Ganymede in that it "snatched me upwards." In all these respects, this dream clearly invites comparison with Leonardo's ricordo, in which a kite "seems" to descend from the sky and "strikes" the infant Leonardo "several times with its tail inside my lips."

This episode from *Purgatorio* IX of Dante being transported by an eagle is depicted by Botticelli, and Leonardo's eagle in *Allegory with Dog and Eagle* is an almost exact copy. Naturally, one can wonder if such an exact visual quotation of Dante, by way of Botticelli, might have been Leonardo's way of invoking exodus from Inferno in his drawing. Marmor makes an excellent case that Dante's poetry infuses Leonardo's work with complex frameworks of meaning, often by allegory but also by close quotation, and that Leonardo utilized Dante's framework most intentionally and even in his late paintings. I highly recommend reading the Marmor article, which is free online.

The quoted passage makes clear many important things. One is, of course, that Freud's explanations of the *Mona Lisa* and Leonardo's "ricordo" or childhood reminiscence about the kite are highly questionable. The degree to which the 20<sup>th</sup> century went on a wild vulture chase about Leonardo is quite severe. Another is that Leonardo understood, like any skilled engineer under time pressure or well-read poet like Dante would, how to use pre-built material where correct. Where else could Leonardo access and utilize literature in service of his meanings better than the *Commedia*? Dante even spelled out all the instructions in fine specifics.

The Marmor essay may not be to everyone's liking, but I find it highly credible and very well aligned with the spirit of Santillana's "Man Without Letters." It spells out much better than I can here how Leonardo used Dante's poetry to build his own oeuvre. (Keizer's 2012 essay "Leonardo and Allegory" is also helpful and well-aligned with the Marmor essay.) My goal will be to confirm and clarify how Leonardo used Dante to establish the bridge-garment-experience structure of the ML which I have hypothesized.

I also have to write an extra canzone for this chapter, to make up for missing it in chapter 1.

It is impossible for me to avoid the accusation that I am inventing connections that are not there between Leonardo and Dante. Moreover, it is impossible for me to refute them in any detail. I will therefore ask only to be allowed to spell out what I think the connections are, rather than try to prove these specific connections or any connections for that matter exist. There may be excellent and overpowering reasons to insist that no connections between Leonardo and Dante exist, I'm just not aware of them. I'll be choosing to assume that it's OK to propose such a hypothesis and investigate it. If it's true, I don't see any harm in saying so; in fact what traditionally might have been considered harms, such as the 1952 insistence that Leonardo was orthodox (as Santillana cites), are actually benefits when you really look at the context and subtleties. After all, in today's world is it more important to ban the

heliocentric model, and smash the evil egg of metaphor to prevent it from hatching into a simile, than to salvage humankindness and the natural world? The presence of compassion and redemption in the world is no longer about scholastic semantics, and to recognize this is merely to respect reality.

Plus, just plain factually, Leonardo was neither blasphemous nor particularly heretic. He was just complex and this was a headache for the censors of his day who were mostly just interested in a paycheck or following orders. It's actually the simplification of deep matters that lacks respect. At least, this argument can and should be made just in case.

The greatest debt I owe you, dear kind and patient Reader, is better clarity, and as we all know this means bullet points. Simple, honest, fair-spoken taconite pellets of organized value. This plan and ledger will be the mission of the present chapter, chapter 5.

Simply put:

- My Mom told me to make an educational comic strip about all this.
- I will shift to a creative use of poetic license for the sake of brevity.
- Brevity is the soul of wit.

To put it another way:

- The *Mona Lisa* is a rich allegory that connects all of Leonardo's works together.
- The *Mona Lisa's* allegory connects to Dante's with both rigor and improvisation.
- The *Mona Lisa's* goal and design is to guide us on the best path and avoid Machiavelli's.

This is basically like saying I'm going to rewrite all of art history, literary history, and political history for you. To claim to do this is perhaps absurd, but on the other hand might not a minor shift in how we read Leonardo, Dante, and Machiavelli shift how we read those histories? In science, when they find new evidence it does factually "rewrite" the affected history. Maybe we are too quick to call

the possibility absurd or to condemn absurdity. And as I quoted Calvino in Book One, as my driver's license so to speak, literature must attempt the absurd if it is to remain relevant.

Rather than a solid framework then, of chapters, and citations, and PhD worthy theses, and avalanches of perfectly choreographed proof, I shall have to present something more like a series of talks and conversations which are more pedestrian than lawyerly. I shall also have to go on more walks, literally, because my brain is full of pandemic cortisol and veritably chokes on it daily. If yours is too, or even if you just are game to walk, please join me!

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Just to mention a couple of quick things.

Think of a labyrinth. It doesn't make any sense from the outside. It only makes sense from the inside, that is, from going through it, like every knot. But from there it makes all sense.

Dante mentions "the haste that robs all actions of their dignity."

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Born and raised an academic, my instincts are deeply grooved to talk about Dante as an academic would. My academic mind tells me "that is the only way to be articulate, and thus the only way to be heard; not to be academic is not to care." Yet my poetic mind, which is different, and rather small like a raisin, tells me that the academic road is out as is periodically the case. There's nothing for it.

If Dante studies were my bark and sea both I might be able to go there. Yet for me there is, perhaps, no boat. No skiff soaring along the water without a splash, great wings of light reaching to the heavens as a sail, to ferry me out of error. I trudge along on sandaled feet, or whatever type of shoes Dante wore. My feet move the dirt when I walk and a shadow is cast by my body. This is good!

For the sake of conversation though I have to at least divulge what I've read about Dante so far: the *Commedia*, a couple of his other works, the Marmor article, and the Keizer, some of the notes in my Ciardi translation of the *Commedia*, and some of the commentary at Digital Dante. The *Commedia* I read just to have the basics (or close to the basics, since I can't read Italian). Then *La Vita Nuova*, *De Monarchia*, for context. I will read the *De Vulgaria Eloquentia* this month. If you want to know what I know about Dante, I'd recommend reading at least the *Commedia* – it goes fast – and the Marmor. The reason for the Marmor is it connects Dante to Leonardo decisively (in my estimation). If you doubt the Marmor, read the Keizer, who strengthens the connection. If you still doubt the connection I'd recommend checking the works cited by Marmor and Keizer.

I'm also going to read Martin Kemp's brand new book about light in Renaissance painting, which discusses Dante quite a bit. But beyond these few sources, assume I know nothing about Dante even as I speculate about even more than everything! By this I don't mean to scale back my aspirations one whit, which are to revolutionize or make renaissant the world's understanding of Leonardo and Dante and thereby, literally, everything in the world today. All by a simple and modest shift from stasis to motion on a few key points. That's the goal, and if I should ever be awarded the Nobel for it I won't turn it down.

Any such fantasia is at least 20,000 leagues away though and I'm in moccasins, on my porch, a new pup requiring more attention in order for her brain to develop than the sound of me typing, and my organic bodily form is badly deprived of exercise, outdoor time, social time, and sleep. This means it is very important that I walk every day for quite a while.

Your task as reader is not to trudge quite so much however, because you have your own path and labors and perhaps even crises. My job as writer of this book is kind of just to relate some of the things I see as well as I can, as well as I can see and relate them.

The most important key here is this: in *Purgatorio* II, Dante describes a great angel who ferries eligible souls out of bondage into Purgatory where they can start to learn what they need to know. Botticelli painted this angel boatman, as it is described, and I believe that Leonardo “quoted” this image in his *Allegory with Dog and Eagle*, as an image of artistic exodus. I also believe that Dante used the image (which is completely of his own poetic invention and has no counterpart in any other text) to illustrate poetic exodus from bondage. He was himself in exile, banished from Florence forever, and had to travel around the cities of Italy depending on the charity of others. In a very real sense, he was himself wandering in the wilderness without a home.

Dante expressed this correlation, what Eliot would call an “objective correlative,” by having the souls on the ferry sing a hymn about exodus from Egypt. When the passengers arrive on the shore where he and Virgil stand, Dante sees a beloved old friend. They try to hug, but cannot because the friend Cassa is spirit only -- a mere shade. So Dante asks his friend to sing a song for him, of a poem Dante wrote put to music, because he says to the friend “your singing was always able to still the passions of my heart.” This is a reflective, contemplative kind of transfer of meaning by song which sustained Dante enough so that he could start writing the *Commedia*. Close to this episode of the ferry and friendsong Virgil explains how Dante’s own “madness” when he was lost in the forest so “burned” him that he almost died and went to hell. It is no stretch to see this as a reference to suicide.

In Dante’s era in Florence, two political parties fought for dominance: the White Guelphs and the Black Guelphs. These were kind of like political parties today, except they fought wars in the streets. Dante was of the White Guelphs, who wanted more independence for Florence from Roman governance. They defeated, at first, the Black Guelphs, who were backed by Rome. Yet soon with outside help the Black Guelphs returned to power and banished or killed all White Guelph leaders and confiscated all their goods. Dante was banished, along with the Gherardini family who were ancestors of Mona Lisa Gherardini. Dante never returned to Florence, and died in Ravenna.

How did Dante find his freedom after all this? By writing poetry. Plain and simple. But it couldn't be just any poetry: it had to be a certain kind, and we may clearly see he wanted it to be free of political corruption and accessible to all people who could read Italian. He also wanted to bring in all of antiquity, the classical writers from Aristotle to Virgil, in a sense making the world of poetry bigger. What he accomplished in poetry infused all other spheres of culture and society with motion, which is expressed in the *Commedia's* final lines: his heart's movement linked in perfect timing with the rotation of the stars. All was linked with all and all was in full motion.

Leonardo also had to hide and flee. He was very nearly condemned to death as a teenager for experimenting with his sexual preference because it was forbidden. He learned from that day to hide what he had to hide in order to survive. It couldn't have been more simply illustrated to him. Throughout his life, he served the patrons and employers he had to serve just to survive – a bird in a cage, as he drew himself. And in the final three years of his life he became a refugee, escaping the destruction which surrounded him in Florence to the safety of France. He transplanted everything he had, in order that his work might not all be destroyed. That is the story, the allegory, of his *Boat with Dog and Eagle* painting.

How could such a tale be proven? Well, by corroboration. And I must ask: how can it be disproven? By the poetic license granted to me I turn the burden of disproof back to the historian. You never carry it, and what is worse, you never even ask why! We all have to pay our way.

The corroboration is quite blunt: the eagle in the DBE allegory. It's an exact replica of the eagle Botticelli painted in *Purgatorio* IX. This does not need to be proven beyond a reasonable doubt, since it is not a criminal case. I only need to show what a reasonable, and reasonably poetic, person would think. (Leonardo has already stated more bluntly than can fairly be demanded that painting and poetry are precisely the same art by different names. This is not subject to question, *prima facie*.) Only an

unreasonable or unpoetic and unartistic mindset could believe that Leonardo would copy two Botticelli drawings from *Purgatorio* so precisely for no reason. It is what artists and writers call an allusion: a reference, a connection, a parallel, a link, a correlation. There is no other reasonable explanation.

Therefore, I put to you, dear Reader, that we have three well-founded structural links between works by Leonardo and the content of the *Commedia*: the Allegory with DBE corresponds to *Purgatorio* I-IX; *Woman Standing in a Landscape* corresponds to *Purgatorio* XXVIII; and the *Mona Lisa* corresponds to *Inferno* VII. There are many, many more correspondences as can be found in the Marmor and Keizer articles and elsewhere. But these three suffice for our purposes here. We're not trying to get a PhD.

We all know the old puzzle question we were asked as kids: A is to B as C is to what? This is not called lying, or malice, or indolence. It's about seeing relationships among things. This is important, because much of our lives are spent within these very relationships whether we like it or not. We are, in a true sense, constituted of them. If we choose not to see or understand it affects us and those around us, even the planet's capacity for organic life. Stuff affects stuff. This isn't Communism, or hate, or defeatism. It is much closer to the truth to call it conscience, the only path to grace of any kind.

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The *Naked Man pointing with Staff* is another case of pointing. *Maiden with Unicorn*. *Allegory with Animals Fighting* and *A Man with Burning Glass*.

[https://www.academia.edu/1115752/The\\_Numerology\\_of\\_Dantes\\_Divine\\_Vision](https://www.academia.edu/1115752/The_Numerology_of_Dantes_Divine_Vision)

Noticed the show of Leonardo's books in Berlin. Wanted to go. Travel ban.

Add the Article? Reprint issues?

Write 2 canzones.

Technology is a bridge we wear  
Though as for that, the passing there  
Had worn them both the same as air  
Each path being equally fair.  
The drift may catch us unaware  
Into a sleeping repertoire  
A shining lamp at which to stare  
Too long, unthinking to forbear.  
Do shoes decide where people walk?  
Do books decide what people read?  
Yes, air decides what people breathe,  
And words have voice in how we talk,  
Our food that which on we must feed.  
We wear it like our memories wreath.

The article is, I hope, OK to use, or re-use as the case may be:

## The History of Light in Art and Science

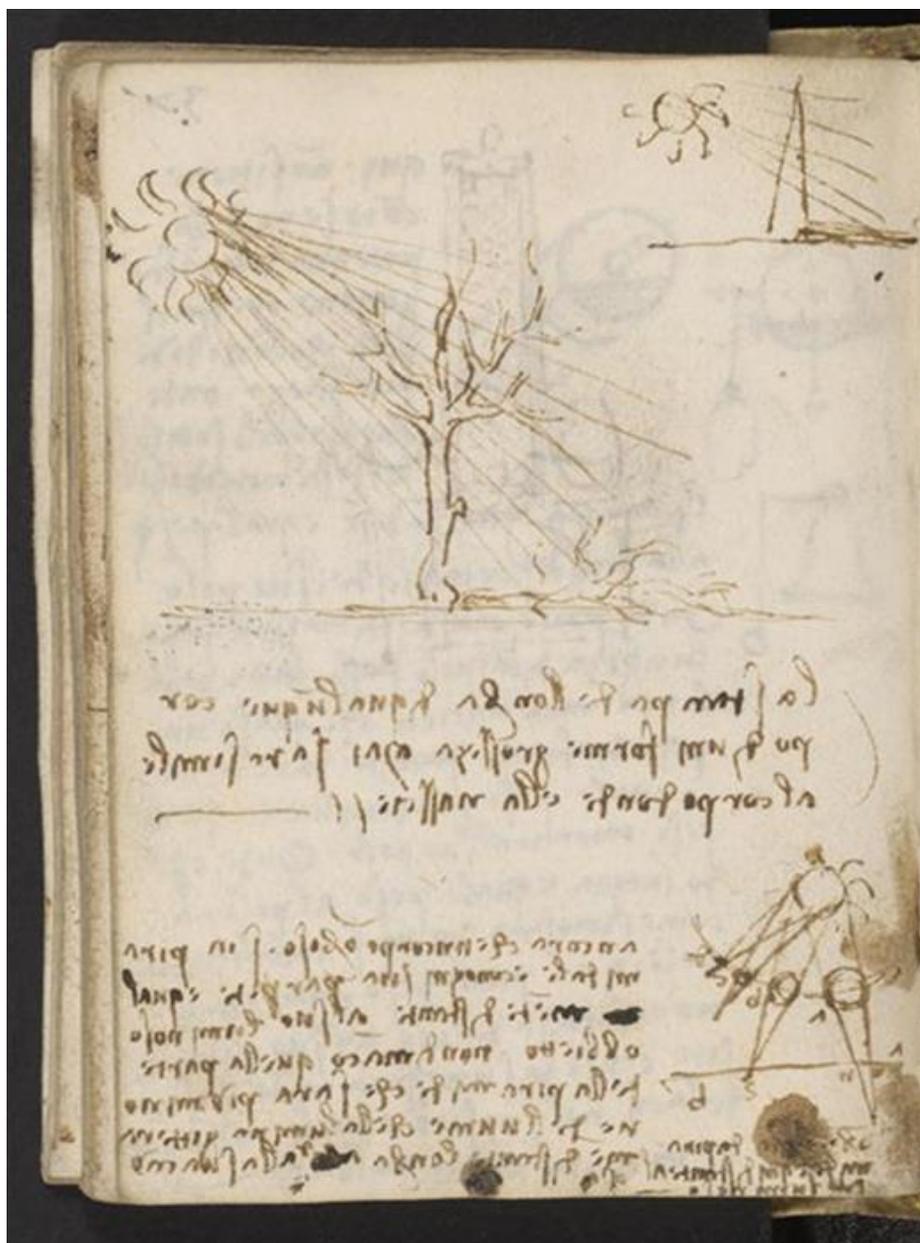


Max Herman

5/26/2021

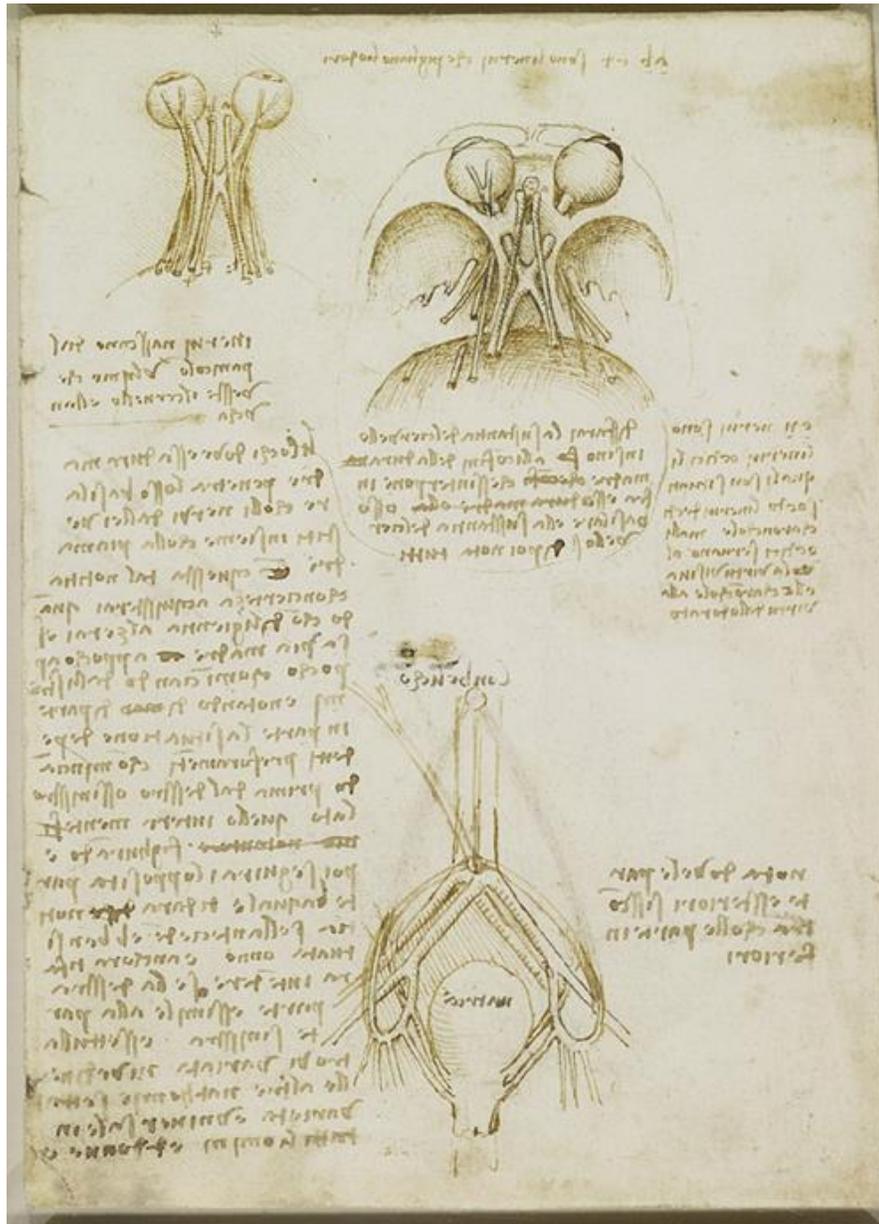
Light, as far as we know, behaved about the same way before life existed on this planet as it does now. Its physics and physical properties – speed, wavelength, energy, mass – have not changed in the last four billion years. The bodies which emit and reflect light are certainly different, but the rules by which they do so are not.

If light itself, its constant nature and invariance according to special relativity's second principle, has remained universally identical during the transition from Earth before life to Earth during, we cannot say the same of its environmental fabric. The biology of light, if it may be so called, added on its arrival extreme complexity to the permutations with which light's constancy manifests itself in concrete forms.



The earliest chemicals on earth, including pre-RNA chimeras cranking out as many strange combinations as the viscous matrix of Earth's vast and early oceans would support, certainly had a close relationship to the light of the sun. First among this eons-long connection was the warmth that kept Earth's ice melted just enough. The dialogue between Earth's matter and the sun's light-energy was well underway before the first DNA molecule and cell sprang

into being; these latter superstars of later ages were at first merely one awkward shy couple among thousands of revelers at a holiday fest. Yet from that day forward light would inhabit a rich new landscape in which to shine.



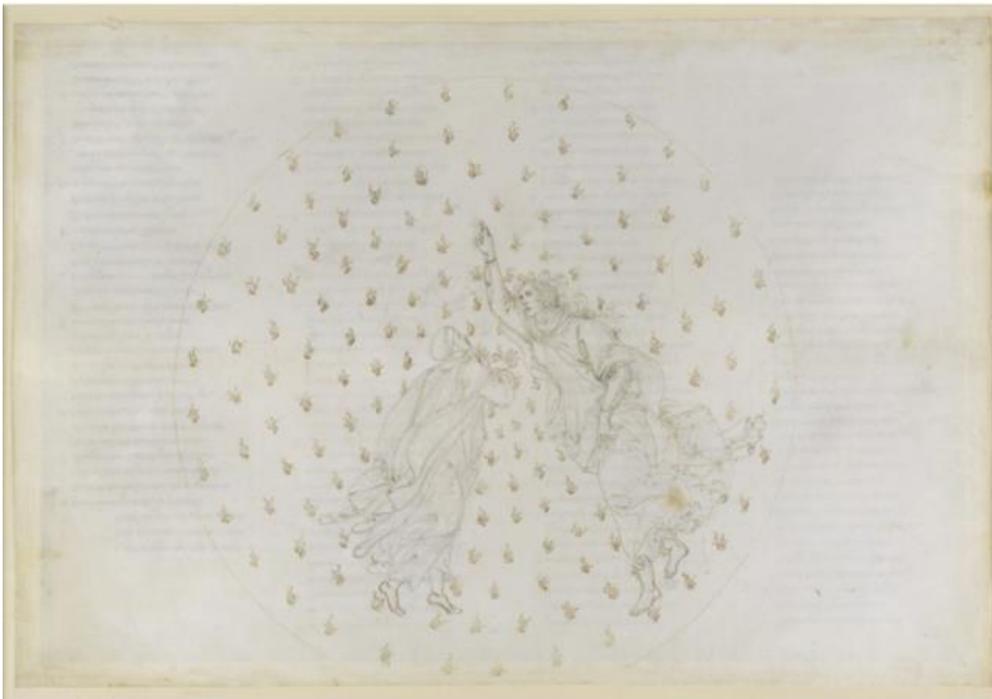
Though warmth was the earliest constituent of the biology of light, imagery – the detection and interpretation of the electromagnetic spectrum by living organisms – was

destined to become its most multifarious and prolific. Imaging light threw open the door to a tremendous level of energy acquisition and environmental specificity in all cellular adaptation. Life could suddenly know about things that weren't close at hand, much further away than smell or touch could encompass, and even gained an understanding of day, night, and time [Sterling]. Whether we call the visual acuity and concomitant neurological development of dinosaurs, insects, plankton, and humans by the name "imaging" or "imagination" is less important than the reality of light being read, recorded, understood, and acted upon by myriad forms of life.

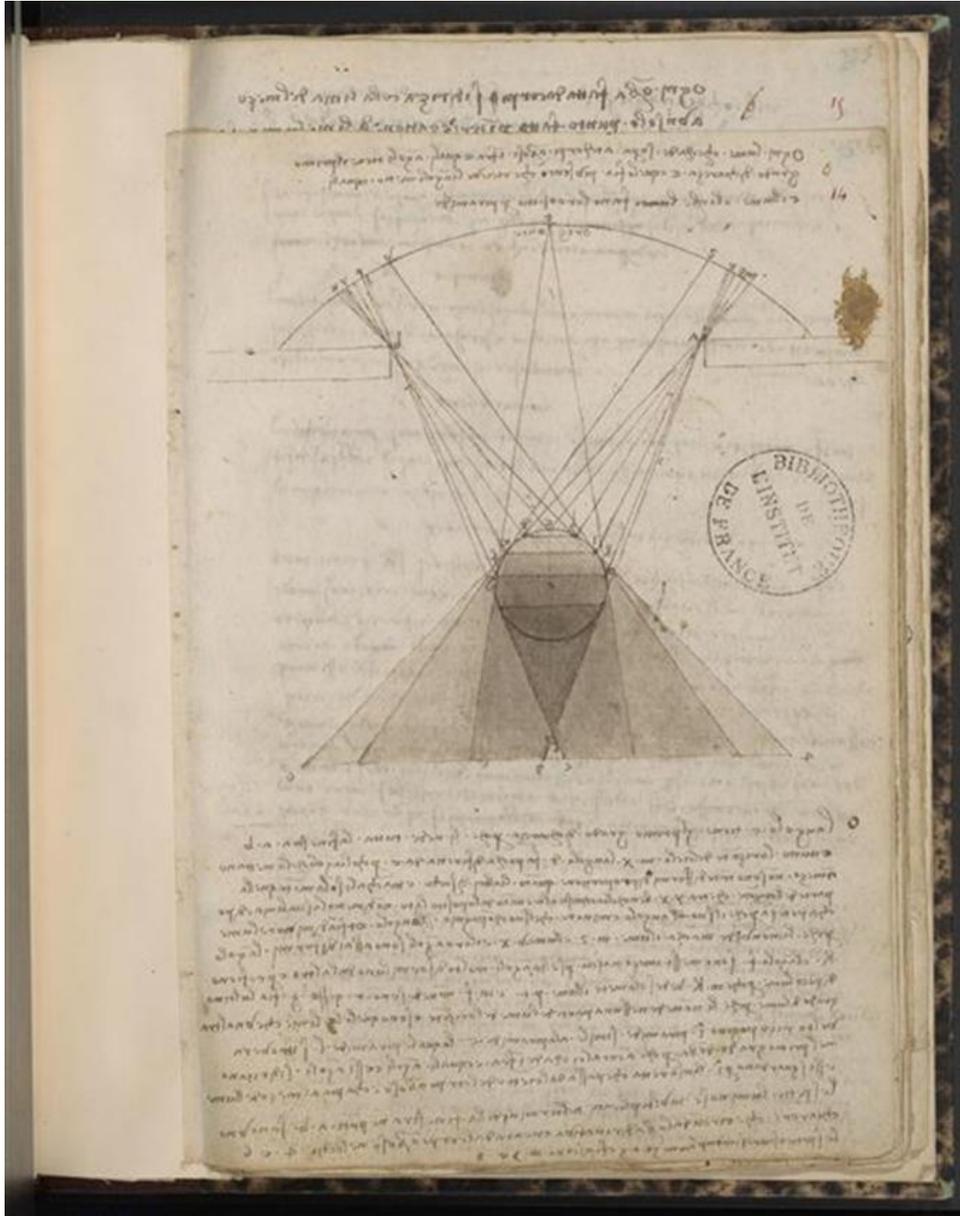


Before long the hills and glades of terra firma would see the dawn of us, we happy few -- that is to say, humans -- who would take the imaging and image-processing of light to virtually infinite complexity. Among our earliest images of the technology of light was a quite simple

copy of one of nature's core fundamentals: fire. Some may quibble that fire is not a technology, or that it is not light just hot gases that emit light. Their claims may be grammatical, but to routinize the appearance of light where an organism wants it, using elements outside rather than inside their bodily corpus, certainly qualifies as technology if breaking a rock in half to scrape bones better does. "Sine luce nihil est," as a distantly related family crest once put it, or at least less is.



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Technology and imagination are two of the most strangely unique and consequential of all human behaviors. It is as if the onset of the one exponentially boosted the speed of the other that it might keep up, and vice versa. The results have been dizzying if not blinding in

their rate of change. Yet mighty and dauntless humanity has honed its repertoire of responses the best it can, and the progress of the arts and sciences may be called the latest and most still-active chapter in the history of light on earth.

Two famous artist-scientists lived two centuries apart in Florence, Italy not long ago. Leonardo's 500<sup>th</sup> anniversary was in 2019, and Dante's 700<sup>th</sup> is this September. Since verbal and visual imagination are interwoven in our ability to perform both science to create technology and art to use it these two characters from a long and winding tale bear close juxtaposition.



Prompted by reading Calvino's *Six Memos for the Next Millennium* in 2018, and seeing the intriguing exhibition *Leonardo's Books* at the Museo Galileo in 2019 (restaged by the Berlin State Library in 2021), I recently became interested in Leonardo's work for the first time in

earnest. Studying Leonardo has required that I study Dante, since according to authors like Marmor and Keizer (links below), and plain common sense, the two are closely linked in both science and art, allegory and evidence.

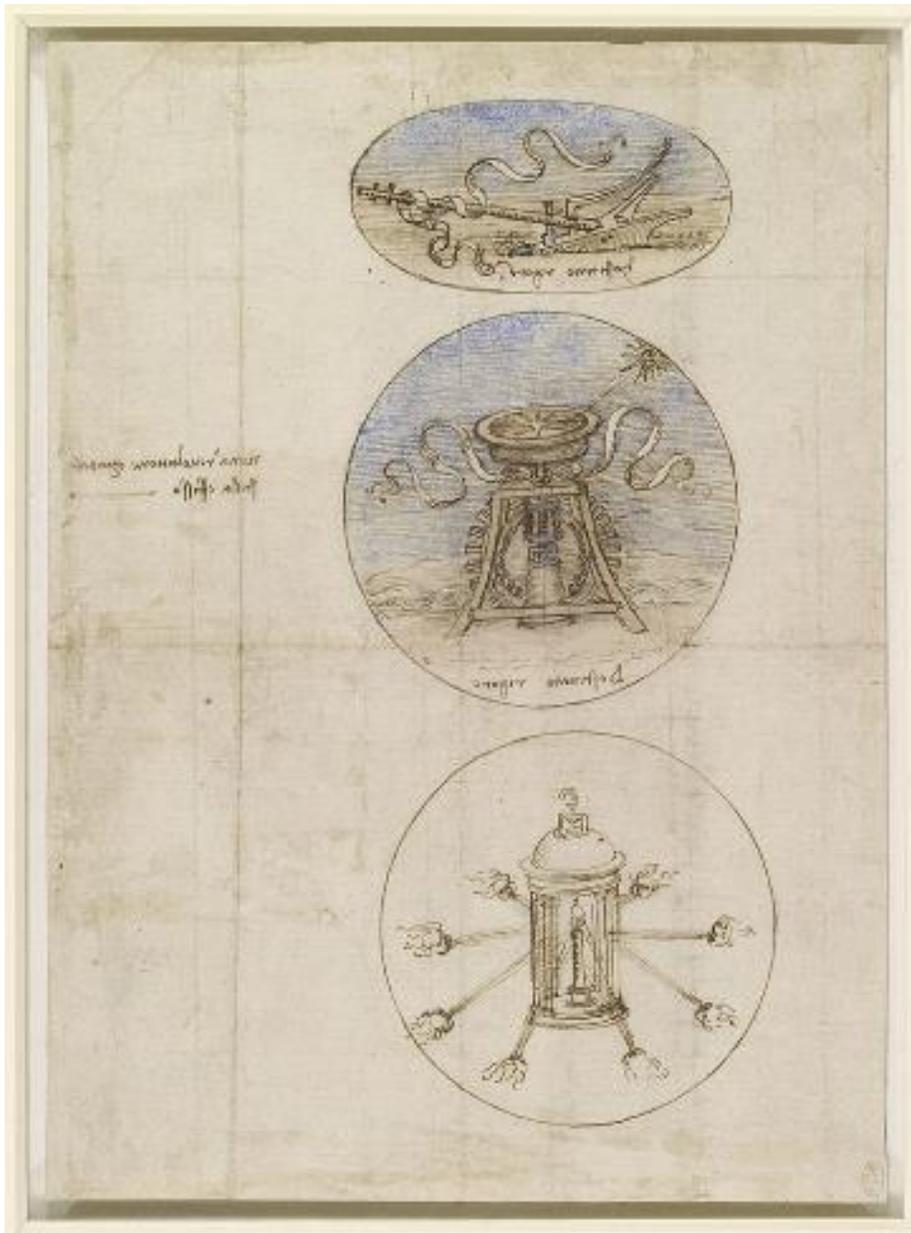
For help I turned to the brand-new, richly illustrated volume by Renaissance and Leonardo expert par excellence Martin Kemp of Oxford University, titled *Visions of Heaven: Dante and the Art of Divine Light*. The book is well-paced, informative, and avoids the common fault of predictability: who would expect a book about Dante's art influence to culminate in a discussion of Gödel? Yet in Kemp's fugue-like narrative style it follows as naturally as night does from the day, so to speak. He cites compelling examples, like Francesca's work in which motes of dust in the light beaming through shutters precisely replicate an image from the *Commedia*.



I cannot encapsulate Kemp's excellent account of the science and poetics underlying Dante's explication of light, reflected in painters from Giotto to Grunewald, nor summarize well his correlation of Renaissance art and science with today's. Discussion of Renaissance *teatri*, al-Haytham's medieval optics, and Heisenberg's implications for reading light in the *Paradiso* requires his book. I have however blogged recently about potential Dante-Leonardo ties. My central hypothesis that Leonardo's allegory of Experience -- *Esperienza* in Italian, a term meaning both experiment in science and enactive cognition in art -- owes much to Dante's Beatrice and Fortuna is not, I think, incompatible with Kemp's overall understanding of Leonardo and Dante (despite some differences).



Full disclosure: though I was sure I coined the phrase myself before seeing Kemp's book, his intro and *paragone* states clearly "I have long been considering writing a synoptic *history of light* (italics mine) across world cultures, and this present essay may be regarded as a highly focused aspect of this wider and somewhat improbable study."



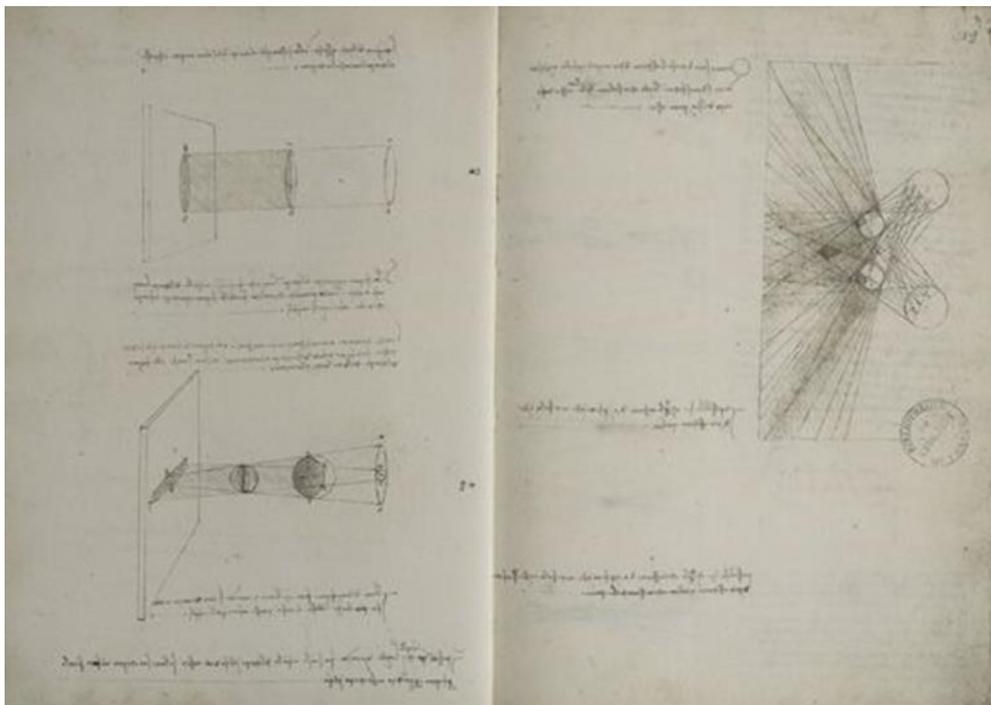
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In “Lightness” Calvino writes “In Dante everything acquires consistency and stability: the weight of things is precisely established.” This is true especially when comparing Dante, as Calvino does, to his mentor and teacher Cavalcanti whose poems include “not so much human beings as sighs, rays of light, optical images, and above all those nonmaterial impulses and messages he calls ‘spirits.’” Still, in the solidity of Dante’s three realms there is continuous motion. The heavens eternally revolve with the *primum mobile*; Purgatory is a pilgrimage, and the freezing winds of Dis are endlessly driven by imprisoned Lucifer’s triple wings. Dante’s journey illustrates human capacity to learn (which must always conform to stages before, during, and after learning occurs), a process phenomenon continuously motive and in flux.



Dante's *Commedia* begins in the dark, yet by *Inferno's* end he can finally see the sky and its light again. In the second canticle he becomes ready to understand the stars, and during the third – built almost entirely from varied images of structural, celestial light – he does just that. The epic's final stanza reverberates accordingly: "Here force failed my high fantasy; but my desire and will were moved already—like a wheel revolving uniformly—by the Love that moves the sun and the other stars."



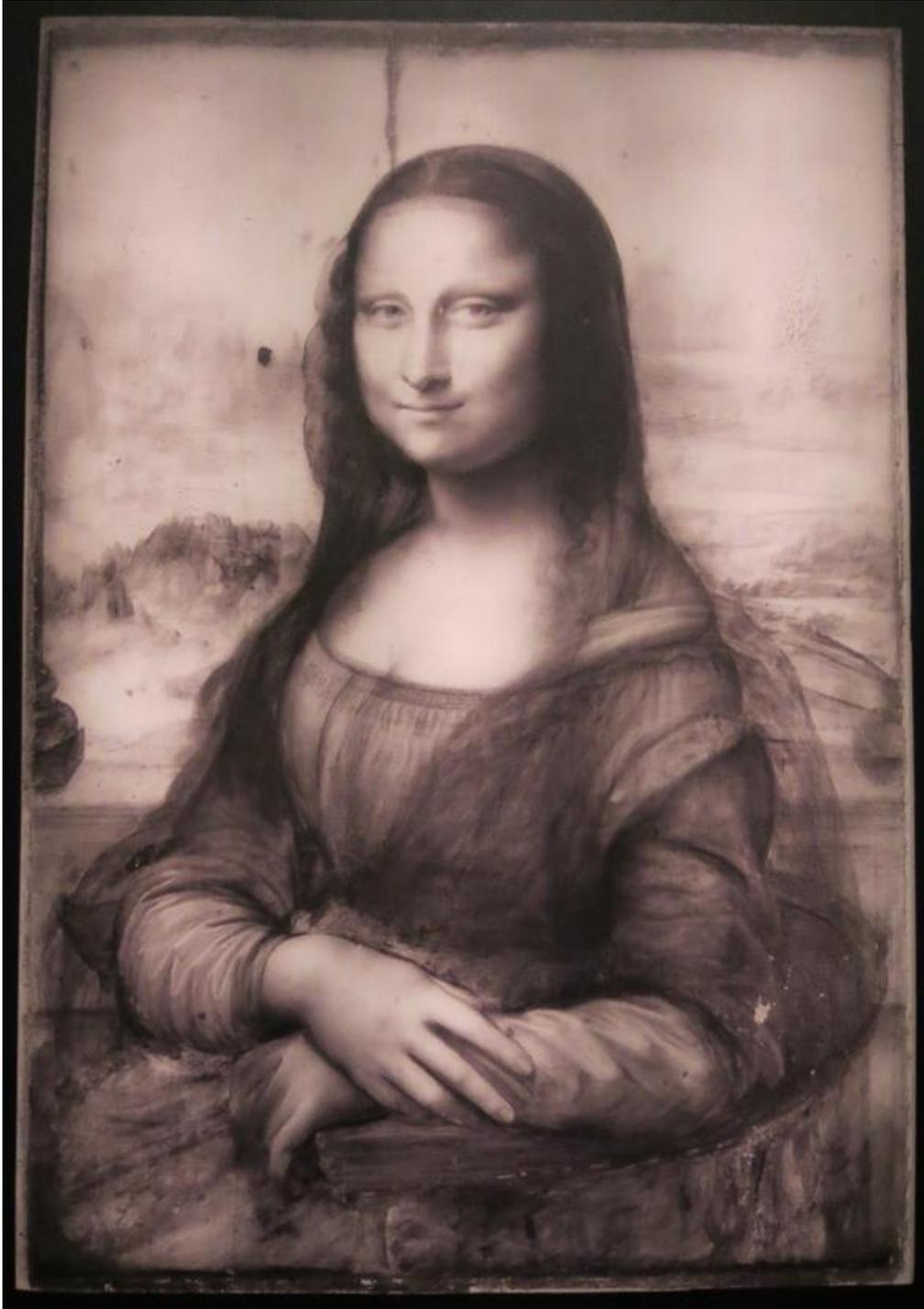
Leonardo took a different approach to motion, writing "The earth is not in the centre of the Sun's orbit nor at the centre of the universe, but in the centre of its companion elements, and united with them." The cosmos is stable but in a more relative sense. Centrality is dispersed and transient, coming into being along the axial lines formed where flows of water, air, or eroded geology become turbulent and torsional. Regarding light, though Leonardo

equated it with truth -- “Nothing is hidden under the sun,” and ignorance’s “Vain splendour takes from us the power of being” -- he viewed light’s actual existence as one of infinite gradation. “The beginnings and ends of shadow lie between the light and darkness and may be infinitely diminished and infinitely increased.... The forms of bodies could not be understood in detail but for shadow.”



Both Dante and Leonardo theorized how material is created in the imagination (*fantasia*), permutating sensory input beyond mere intellect (*intelletto*), through what Calvino describes as “processes that, even if they do not originate in the heavens, certainly go beyond our intentions and our control, acquiring – with respect to the individual – a kind of transcendence.” Beatrice advises Dante “the source of your arts’ course springs from experiment.” Leonardo went further, proclaiming *esperienza* “the common mother of all the sciences and arts” and “the interpreter between formative nature and the human race, [who] teaches how that nature acts among mortals.” Leonardo painted her portrait to “in every case... call her as witness,” this guide and teacher who, as Dante describes Fortuna, “with the other primal beings, happy, / ... turns her sphere and glories in her bliss.”

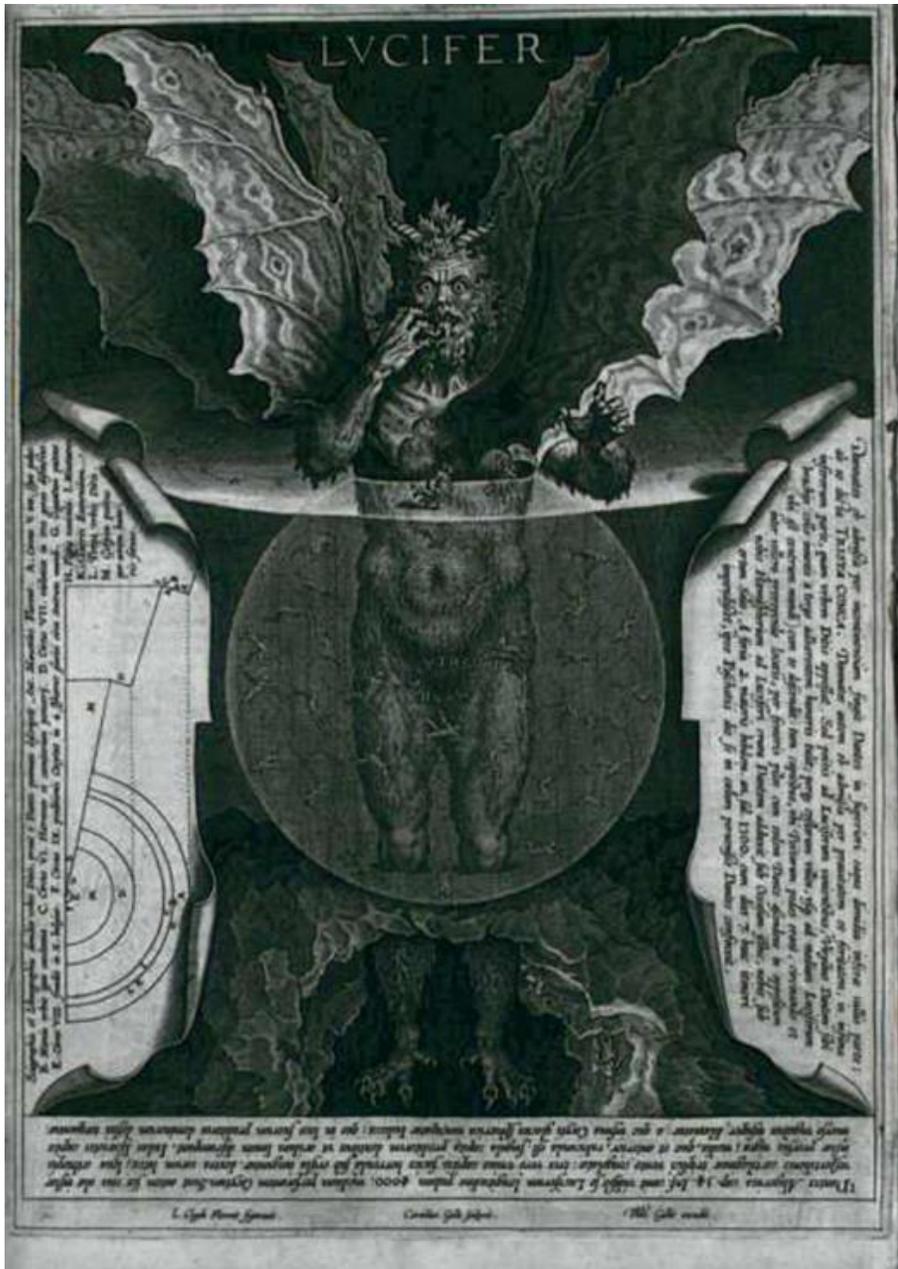
Technology is a bridge from the past we wear like a garment.



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In today's world we might almost be forgiven for thinking that the technology of light has obliterated and all but extinguished its history. Networks of information and energy technology, solid and cathedralic despite their racing rivers of content, form the architecture of our time. These rely on light to communicate and for many of their physical substrates; even the words and images humans use to understand technology appear mostly online and on screen. Our human eyeballs are fairly splitting open with pixelated flows, and blood-spurting eruptions are only narrowly avoided by the cagiest of algorithmic feeds. Yet Dante and Leonardo knew better than perhaps we electronic citizens do that light is not merely in the eyeball. Its biology goes much deeper than that, internally and externally, and without this deeper life light's motion is certainly only limping along the surface.



Calvino – who enigmatically points to *GEB*'s "Consistency, Completeness, and Geometry" even though his own sixth memo "Consistency" was left an empty cipher – quotes Hofstadter on Gödel thus: "[Do writers] know where it all came from? Only in a vague sense. Much of the source, like an iceberg, is deep underwater, unseen...." Dante writes of Fortuna, the "Lady of Permutations," that "season by season / her changes change her changes

endlessly.” If imagination worked as mechanically as a revolving door it could never learn, much less create novel forms, and without the capacity to accommodate the random science is but an empty suit. What ill fate did Machiavelli earn by his desperate attempt to coerce Fortune? Dante would know: perhaps an unholy self-impregnation, a sci-fi baby dragon of silicon and cartilage bursting its hungry way through *Il Principe’s* rib cage in a loop for all eternity (and then, to add insult to injury, making fun of his poems).



IVI PAREVA CH'ELLA ED IO ARDESSE,  
E SI L'INCENDDO IMMAGINATO COSSE,  
CHE CONVENNE CHE IL BONNO SI ROMPESSA.

PURGATORIO, C. IX, V. 31-33.

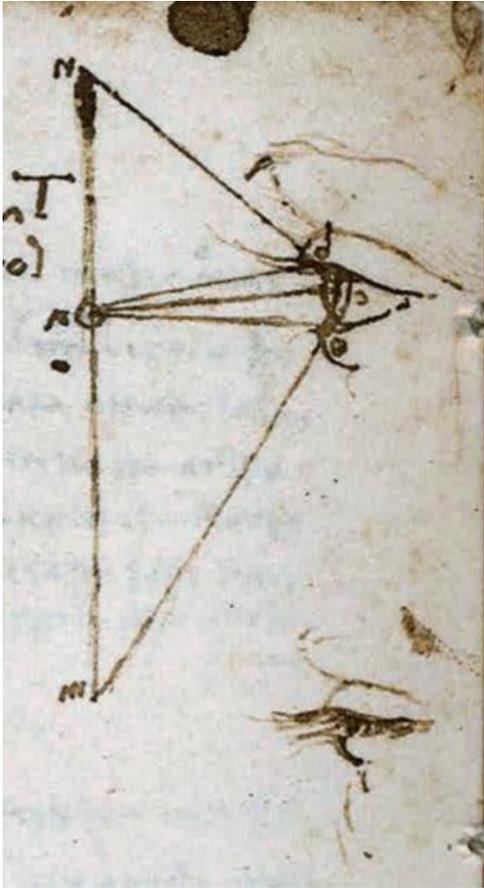
If we understand Leonardo's eagle shining atop the globe to be an allegory of – don't laugh -- the internet, we may conclude the artist had hope the tree of Fortune's imagination would find a body politic able to host it.



At the very least, we do know the biology of the brain is linked to imagination, upon whose well-being much will depend. The incredibly simple act of meditation – which is to say, doing nothing while at the same time not sleeping – pervades what has been called variously enlightenment, the inner light, and the ability to see without the eyes, which is to say, to imagine or *saper vedere*. Mindful breathing while the brain is awake, looking at either stars or another person's eyes, mountains, rivers, or seas, embroidery or a rose of light, may be nature's way of helping people visualize what have you and then, perhaps, even discuss. We can only cross this bridge when we come to it but thankfully that is often here and now.



As Leonardo said: "Observe the light and consider its beauty. Blink your eye and look at it. That which you see was not there at first, and that which was there is there no more."



Author's bio: Max Herman is a writer and artist based in Minneapolis, Minnesota. His blog "The Mindful Mona Lisa" has appeared at [blog address] since May 2020.

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The *Inferno* shows lives which ended in a bitter state, people who had lost their Reason with a capital R. This word doesn't mean "logic" as later critics might insinuate. It meant more like "the ability to be and to act." The *Paradiso* shows those who have gained it. What's in the middle, the passage across? In *Purgatorio* we see the path, the course which is taken, and in this state of travel the operable physics are those of the imagination. How does painting work? How does poetry work? These are the professional secrets, so-called, Dante shares with readers of Italian the way the *Aeneid* was shared with him, and with Statius: a *Convivio* hosted by Virgil, Dante, Homer, Statius, Cavalcanti.

The *Convivio* means banquet, and in the book of that name Dante declared his intent to share what wisdom he thought he had of any value. In *Purgatorio*, we see the logic or logistics of this seeming paradox. Dante says, "how can sharing something give each person more?" Virgil says, "that's the miracle." But it's also plain logic, practical engineering and design without which evolution would be nary a trickle. Virgil spells it out in *Purgatorio* 15-20, and more. "When you see someone else making good art, it kindles your own wish to do so too; not to steal, but to add, and by adding receiving not only more but the grace with which trying to steal what cannot be stolen is seen for what it is: folly." I paraphrase, of course. Virgil qualifies the idea of Averroist "universal cognition," which is a non-anatomical theory very much like today's network neuroscience model of intelligence, in order to affirm the role of individual responsibility and hence some spirit of cognitive morphogenesis as we see in the fascinating account of sea-jelly coagulating into humans.

In *Purgatorio* we also see the all-important museum of "visible speech," paintings in which the figures are static but seem to speak not just once but back and forth to each other. This episode bears close and quiet consideration. How is it possible that we could look at a static painting, see one person in it speak, then see another answer, and finally see the first answer in return? Of course it is possible, but only if we realize that imagination occurs in time. We see the first statement because of context; we see the reply because of the new context created by the first, and the last or third because of both the

first two. There is nothing paradoxical about it at all: things happen in sequence in our minds even if they are from a merely technical standpoint “over and done with.”

Another example: can we consider Shakespeare a friend? Well, friends can converse and Shakespeare no longer lives. But cannot we hear words from Shakespeare? Of course we can: “full of many dungeons and cells, Denmark being one o’ the worst.” Can we ask a question back? Yes: “why didn’t you just go ballistic and put a stop to all that with a bare bodkin?” But is it then possible for Shakespeare to understand what we have asked, and who we are, and answer as a friend would, to us, with awareness? Possibly yes: “it’s not that easy, is it, just to go berserk – that’s not what I’m talking about here; I’m talking about what happens when going berserk doesn’t fit the bill. Look in the mirror: can you fix everything in your world by going berserk?” We answer: “Jeez of course you’re right. I’ll pay more balanced attention. We’re not that different. Thanks for talking this over with me.” “No problem, you’d do the same for me and so did all my other friends.”

There’s a phrase or concept I mentioned perhaps here, or another book, the first: “the sight softens.” This happens when you calm down a bit. Light gets more nuanced; your face relaxes. It’s hard to explain if as Dante says “use Glaucus till you’re granted the *esperienza*.” Certainly, you can’t force your sight to soften. But if you calm down and breathe it happens naturally. That is something like what is meant by seeing “visible speech.” Or having an active friendship with someone no longer alive. Would we ever say that friendship with the living requires no imaginative assembling of the past, present, and future, but is somehow passive like hearing a sound? Even hearing a sound is far from passive, which is partly why Plato thought (as Dante discusses) that some kind of fire emitted from our eyeballs, collided with the incoming light, and by fusing the two our brains became able to see. This isn’t even that wrong, since the cells of the retina, and pupil, and lens, and optic chiasm are metabolic in real time when we see and that is absolutely a form of fire.

I must leave some space and not digress too freely here. It's necessary to discuss the full plan of the *Purgatorio*, write another canzone to get caught up, and make sensible statements about how "the sight softens" relates to "*il stil dolce nuovo*." The sweet new style is a key topic of *Purgatorio*.

And perhaps most importantly for me not to forget: the *Purgatorio* is, very interestingly, a subtractive model of change, and subtraction of a very multiplicative sort.

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Leonardo said, "Fear arises before anything else." This is extremely accurate neuroscience, as fear is the first among all survival responses. It evolves and occurs first.

Fear underlies many stress responses, and certainly chronic or unhealthy stress. Poorly managed stress can lead to dysfunctional coping strategies such as sin. In various stress disorders, meditation is used to reduce fear responses and replace them with more calm, considered responses. This is the SR in mindfulness-based stress reduction, for example.

Yet how does meditation circumvent fear, and disrupt its permanent "first in line" advantage? This is done by what is called in neuroscience "reappraisal." The supercharged hormones of fear attach to scary stimuli, such as barking dogs. Once this happens, the brain automatically and instantly gets afraid when it hears a bark. What disrupts this? Reappraisal of barking. Language is very useful for reappraisal, being useful for many different activities and tasks, and is part of the human organism's ability to manage stress. Visual imagination is also crucial: if we see a dog, we get scared, and things we are afraid of look much different – our vision of them is different – from things we are not. Our visual experience of a dog we are afraid of is much, much different from one we are not. This has to do with what hormones are happening at the time, and whether our sight is hard or soft. Our language intertwines with the visual memory, response, and assessment.

To reappraise, we have to process the stimuli while calm – while not in fear mode. Then we can write or paint a different, re-appraised image which, now in memory, becomes an alternative to the first-in-line fear response. The new image we create is kind of butting in line ahead of the fear. For example, one might sing a song with one's family and friends to the effect of "oh little doggy don't bark at me, bark at me, bark at me, oh little doggy don't bark at me your leash is on the tree / your fence is much too high / a biscuit for to see / as you're a friend to me." With a catchy tune, it can be whistled. (Dante's song was *La Vita Nuova*, the new life, based on *Stil Dolce Nuovo*, the sweet new style, whose sweetness resides in its naturalness and cultivation of love for self, others, sound, word, sight, and all of nature and the arts. You could also carry a lucky rabbit's foot, or a lucky pebble, a sprig of laurel, what have you.)

Re-appraisal is subtractive, like a neural pathway that goes around a hot-button area. It relies on plasticity, but the point of building the new is to de-activate the previous. After disuse, the previous path of say hating people who don't look like you atrophies, removing its concomitant emotional supercharge. It is no longer first in line.

Leonardo does not speak in long lectures. He tells the key sentence only: "Fear arises before anything else." Such volumes are communicated by this! One could call it epigrammatic speech, with prolific advantages much like those of the ideogram, telegram, rebus, or allegory. Imagine, perhaps, a square coin with those words stamped on it or just "FABAE" or Fabae Sunt Monstris, with the image of a tortoise, or a hare, or a kite. What in culture, what in art, is not in shorthand? And the purpose of shorthand is to deliver the benefits of reappraisal to short-circuit fear.

I simplify. Yet Leonardo's modernity, can't you see it, can't you sense it? He asking: how do events occur in the mind? What occurs, and how, and why, and in what sequence? This is the architecture around the little bench, window, or side-chapel built for "Fear arises before anything else."

This could also be translated as “Fear arises sooner than anything else.” The speaker of these words, the writer, is a modern: aware of events occurring in the mind, studying them, researching what can and cannot be done to influence them. It is a systems approach.

Let’s add a layer: human art is not unlike *The Genius of Birds*, a book lately given to me for some random reason. I haven’t read a word beyond the cover. It simply says, roughly, birds have a cortex; it’s just not anatomical, like ours is, but procedural: their small brains without cortexes cooperate to form the phenomenon of one outside of anatomy. Network neuroscience knows this, and the folly of functionalism, or looking for a lobe to fit every mentation.

Birds, as I described in book one, manage threat and fear responses by a net of calls to each other. If it looks to us like a flock of robins has a cortex, it’s because they do, just not inside their skulls. Averroes said something like this, but also did Dante in refuting Averroes: poets inspire courage and love of poetry in other poets. Or as Dolly says of manure, “it only works if you spread it around.” Imagine if humans only ever talked to themselves! O my goodness.

Punitive is not the same as subtractive. Subtraction is pragmatic: what removes the pathogen works just fine and there is no need to go further, hence doing so is waste. Leonardo said, “in nature nothing is missing and nothing is superfluous,” because it is “governed by necessity.” Another Leonardo aphorism of great *forza* here: “When the sun appears which dispels darkness in general, you put out the light which dispelled it for you in particular for your need and convenience.” Before the sun appears, you don’t, of course.

Fear isn’t the cause of everything. It’s not the only thing. But being first, it poses a proportionate risk. Fear itself and all that. It’s too efficient and needs checks and balances. These are called various names, but all involve learning and awareness which are requisite for bypassing habit and conditioning. This is the moment of creative freedom and what they call agency, will, or impact.

Leonardo depicted this as the *Mona Lisa* pointing, in my speculation, as in part a response to the God-Adam finger touch. Yes laugh away, how could I begrudge you that? Yet how like mudras are the gestures of Leonardo's school's Baptist turned Bacchus. The pen and brush are, one argues, mightier than the sword. As Keats said it, "trace their shadows with the magic hand of chance." It's counterintuitive perhaps but that's what makes it so versatile, this tracing of shadows.

An old tennis coach and retired surgeon once told me "we are creatures of habit," and this captures a lot of how we function. There are many ways to let go of extra baggage. The new style is sweet for the same reason meditating is highly pleasant after a while. It's what Sterling calls small repetitive dopamine release I suppose. The large bolus, being relative, is unsustainable. When meditating each breath is literally quenching a thirst for peace. It's a good place to start. It's also the archaic smile and the Buddha smile, or as Dante said, maybe, or someone else said, "slight smile." Dante uses an interesting metaphor in *Purgatorio*: "loosening the knot of debt" created by wrongdoing. Debt binds; unmet necessity constricts. Slower breathing is deeper.

When Clotho cuts her thread your life is done.  
 Events are woven from a mix of things,  
 Electrons and their protons tracing rings  
 Through time the strands of flowing waters run.  
 A living being driven by the sun  
 To gather from the soil of many springs  
 And rain the matter which once knitted brings  
 Maturity is only briefly won.  
 The leaving out is never to depart,  
 Yet those who find a balance that can tell  
 When warp and weave are in an easy fold  
 Will ken the limits of their chosen art  
 Not burden it with what already fell  
 Or cling to memories already cold.

Graphic 5



Web log 6

# The Mindful Mona Lisa: Scientific Allegory and the Algebra of Dream

By Max Herman  
Thursday, 06/03/2021



In Canto 9 of *Purgatorio*, a pivotal moment in the book of the *Commedia* most freely improvised (since there is no official orthodox account of this realm) and most idiosyncratically the author's own, Dante speaks directly to his audience:

Reader, you can see clearly how I lift  
my matter; do not wonder, therefore, if  
I have to call on more art to sustain it.

In this episode Dante falls asleep under the weight of having seen so much of the underworld and its retribution for human error. His ability to climb the base of Mount Purgatory, and reach the [gate](#) of the domain in which learning and change can proceed, is in doubt, and one of several helpers throughout the *Commedia* -- Saint Lucia in this case -- lifts him up and carries him, still sleeping, up the mountainside to the gate.

However this is not how Dante describes his transport out of ante-purgatory, a state of limbo in which he might linger indefinitely should he fail to go forward with purpose and conviction. Rather, he offers this most vivid tableau:

At that hour close to morning when the swallow  
begins her melancholy songs, perhaps  
in memory of her ancient sufferings,

when, free to wander farther from the flesh  
and less held fast by cares, our intellect's  
envisionings become almost divine—

in dream I seemed to see an eagle poised,  
with golden pinions, in the sky: its wings  
were open; it was ready to swoop down.

In addition to reminding the reader to be aware of [allegory](#) (a mode of writing Dante had delineated and extolled in the *Convivio*), and comparing the saint's assistance to that of an [eagle](#) sent by Jupiter, Canto 9 affirms how states of imaginative insight resemble those of sleep, dream, and fluctuating imagery. Dante is not saying these images are identical; he is weaving a subtle network of interconnections for aesthetic, narrative, and

rhetorical effect. This blending of ancient with contemporary was at the heart of Renaissance [transformation](#) out of the medieval age into the modern.

Such use of symbols and symbolic relationships should not be mistaken for superstition, delusion, or folk tale. Rather, it is more akin to scientific experiment and analogy, a framework designed to articulate relationships and their morphology in a condensed fashion. It is not wholly unlike what physicists do when they replace phenomena in nature (such as the speed of light) with an arbitrary symbol (like “c”) for the sake of juxtaposition with other realities (like “m” which is mass, “E” which is energy, and so on). In [algebraic](#) math, such definition of variables is fundamental to correlating diverse quantities and processes. Dante’s multifaceted account of how imagination works relies on allegory to systematically build layers and depth of meaning. Similarly, as Joost Keizer [writes](#), “Leonardo organises perception as the discovery of similitude, unveiling nature in its original connectedness with culture, and revealing culture as something similar to the things we observe in nature.”

Author and historian Max Marmor [writes](#) persuasively on Leonardo’s use of this “dream” vocabulary from Dante, which revolves around the repeated use of “I seemed to see” rather than “I saw.” Such “seeming to see” is not quite the recollection of an actual dream, but a mix of reverie and metaphoric insight Dante attributes to the pre-waking hours. Leonardo uses this vocabulary and style in an early story, “The Cavern,” and elsewhere in his writings, supporting Marmor’s thesis that this “dream narrative reflects, in its specific language, poetic conventions familiar to Leonardo from his reading of Dante’s *Divina Commedia*.”

Leonardo is renowned for his use of translucent layers in paint (the *Mona Lisa* in places consisting of as many as thirty), but he was also quite proficient in his use of verbal and symbolic allegory. Hence we may quite reasonably ask whether Leonardo’s exact [copy](#) of the eagle in [Botticelli’s illustration](#) of *Purgatorio 9*, and other [references](#) in text and image, suggest that his equations to and equivalencies with the *Commedia* were designed intentionally by Leonardo -- being both the Renaissance’s greatest engineer and one of its most prolific and unconventional authors -- with precise not accidental balance, order, nuance, and scale.

Marmor suggests that there are also reasonable grounds to “consider the possibility that Leonardo’s last paintings, too, might bear some relationship to Dante’s narrative techniques.”

Next blog: subtractive development in art and science

## Essay 6

This morning while meditating I thought of the first two lines of a poem. The first was pretty basic, and easy to remember because of the meter: iamb, dactyl, dactyl, dactyl, iamb. However the second line was the nicer one and made me want to go write it down. This is not advisable in meditation, according to many teachers, because if you are always getting up to write things down you're not really meditating in the way I find most helpful to me. Thus I forgot the second line.

It had something to do with hands, or weaving, or something like that, based on the *Mona Lisa's* hands, as being a way that something can continue through time – a process can. Sort of like the idea that music is the sum total stream of all the hand-touches on all the instruments ever played (or breath-touches if we are talking vocal cords). It's not so much the instruments, the scores, the recordings, the buildings, etc., from this point of view, though one can easily think it is. It's easy to forget the sense in which music is not those things, but the hand and breath touches. In Leonardo's terms – he invented his own type of lute and was very good at playing it and singing too – the art and science would be in all the pen and brush markings he made with his hands, words he spoke, etc. I'm really not sure why this image caught my eye or even what the image crystallized as in the two-line poem. However, I know it made sense to me and seemed worth writing down. I now wish I had, out of curiosity, but in general I'm not in favor of interrupting meditation.

Why would such an image be relevant? Something to do with allegory? Maybe, the allegory of the hands weaving the garment or something. The bridge? That odd structure still seems to stand alone. The image was something about the value of taking one's time and noticing individual elements as they proceed, like beams of light through trees hitting a forest pool. But not really that. More about how the hand touches are the hand, and the breath touches are the breath. Why call the breath

something strange and disembodied all by itself hovering in the universe, like a sign without a signpost?  
 “Breath.” Enough linguistics perhaps.

I don’t know why I felt the image would be relevant, but I think I liked it because it made me feel like I could bring some form to this book, now almost half done, and keep it in accord with what Leonardo was trying to do. There was something to the image about flows becoming turbulent then going smooth again, maybe. A day or two ago I was thinking of the ML as intentional “call,” in the sense of jazz improvisation, to which Leonardo envisioned and requested a very specific response, i.e., for some one of us later humans to write or say “the bridge.” Like a shirt with one sleeve in the Renaissance and one in 2021? A javelin that Leonardo heaved as hard as he could, leaving instructions for us to hold up a target in a certain place at a certain time in the future.

There are other elements of allegory I’m missing, and I’m pretty sure allegory is part of the need I had for the image. I saw the movie *Paper Moon* last night, which hasn’t aged well, and of course that is about false hopes still at least having the virtue of being hopes. Maybe it is something about how science is allegory, algebra derives etymologically from setting bone fractures, or conversations happen.

In any case, here is what I wrote today after remembering during yoga class (yes I need yoga) that I had lost the image I wanted so much to write down, remembering, that is, the feeling of wanting to remember it which was still vivid even though the image and words were not.

If you really want to try to write  
 To listen is the easy early step.  
 And not to targets set you by adepts  
 But lingered sounds around a pool by night.  
 Not just to whorls of darkness and of blight  
 For magic shadows of a hand that slept  
 Half a millennium, although it kept  
 A fast, can indicate and trace the light.  
 A thread under a spider’s touch will quiver  
 In rain, a cruel sun, or raging storm  
 The glands from which it flowed shattered and broken

Yet since the birth of time a sinuous river  
 Has nested births and spun the wheel-spoke form  
 From which the dream of touch has never woken.

The image I forgot definitely could have been about light falling into a forest pool, which is like one of those observation tanks deep underground waiting for a single proton or neutron to decay, or the moon which is the ultimate allegory of reflected light.

+++++

The task of this chapter is really to get the entire framework of Dante back on track as a partnership with Leonardo, which is a task I've almost already failed to accomplish. It could even be permanently, who knows. Yet the main goal is to just say that Leonardo spoke Dante's language. You can read the Marmor, the Keizer, and others to see the plausibility of that. I can't prove it for you if you won't lift a finger to listen to them. I'll just try to add a bit, and then also add my own comments about what is most interesting. (This isn't a Dante dissertation I'm afraid.)

In a sense, the present always has to return to the past because it exists in memory, and we cannot exist without memory. This is not exactly what Nietzsche may have meant by eternal return, which I for some reason always seem to almost see as a typo of eternal re-run. I have disagreements with Nietzsche which you probably have no interest in, and I certainly have very little, but he has probably had every idea in this book before I did. Well maybe not. If he didn't, then there's that.

So, the Renaissance had to go back to antiquity and recollect it. There was nothing for it. The then-contemporary apparatus of medieval technology, its art and its science, couldn't just ignore the ancients forever. It just wasn't possible. So, Dante had to do what he did in *Purgatorio*, articulating the dreams, weaving the various allegories together, the eagle and Lucia, among a thousand others. Our errors may be exactly the errors of every era, rooted in our inability to realize the present was present

for others in the past just as it is for us today, and very similar in fact despite their not having digital alarm clocks. They had enough, and we shouldn't think of them as primitive cartoons.

Can we go back to the Renaissance and weave what Dante and Leonardo did into what we are doing? If not, we may need to try a little harder.

+++++

Hi all,

I wrote the below yesterday and made a few minor edits this morning. It's almost completely silly and foolish doggerel so please do not take it seriously as verse! I tried to mention some points of possible conceptual interest regarding Dante's potential relevance to contemporary contexts surrounding imagination, but they appear only very vaguely like a rough draft of a rough draft of a rough draft.

All best and happy Monday,

Max

+++++

On Canto 9

Today I thought I might compose in rhyme.  
A hollow gesture, which I have not done  
Enough to make it worth the reader's time

To spend the work assessing if it's one  
That meets poetic codes of quality  
And isn't just generic idle fun.

It's reading Dante that has shaped to me  
The simple form of da, da-dah, da-dah  
Which is a mix of hear, and read, and see.

The terza even is an algebra,  
Triangular, which Dante hoped to make  
Into a rubric or funicula

Which using both a cable pull and brake  
Could carry allegory as with gears  
Both up the mountain and back to the lake.

Yet that is of no purpose. It's the fears  
I think, of art and science as they dawned  
Or hoped to dawn, ago five hundred years

Or seven, far away across the pond,  
Which Dante hoped to dull if not assuage  
By crossing as the SF bay by bond

Our sight of hell before the Golden Age.  
Inventing *Purgatorio*, a place  
Not in the other books, he adds a page

Akin to those instructions that we face  
Inside a box with something that we bought  
But cannot use; so haltingly we trace

The A-B-C's along the hill we ought  
To use in art and science if we hope  
To make a difference in the world we've wrought

By choices, acts, and messages like rope  
That tie us to the past with twisted force.  
In Canto 9 he shows us how to ope

The Golden Gate (a bridge or transit course)  
To places where imagination works.  
Adiabatic walls are real, the horse

Or horses pulling cars. The engine lurks  
Sometimes revolving all the same,  
Yet too much cuteness never helps: it irks.

The middle book is thus a middle game.  
It speaks of moves and likenesses in flux  
Where water strikes the city's banks, or flame

Warps metal, melts the sand, and just inducts  
The perfect energy to shift the form.  
In 9 -- three threes, so called -- Alighieri plucks

Some nifty threads to add into the norm.  
A dozen modern poems, short and sweet,  
With Imagist or Piet-like lines can warm

This canto to you if you hear the beat  
And meter of the sound reflecting what  
The Sweet New Style of all those dancing feet

We call the Renaissance, the modern cut  
 Away from less development to more,  
 Proposed could stasis naturally rebut.

But either way, if cantos aren't the shore  
 Your boat is floating to or sailing off --  
 All goodness knows they're not my chosen oar --

We can our strict adherence habit doff  
 And look at canto 9 like shattered bits  
 Of pottery, around a hearth a toff

In antique days still sits around and knits  
 The map of family ways and royal roads.  
 The pavement can be caved, it never permits

Our vehicles to travel it with loads  
 Of what we like or do. We walk a while  
 Amid the weeds and bramble. Though it goads

Us with its perfect-mirrored, certain smile  
 We do not have to be all it describes,  
 Though we can listen for a scenic mile.

Of interest or of none, object of jibes  
 And taunts, a place to walk and simply look,  
 We get as visitors to choose. The scribes

Of laws are not omnipotent; they took  
 In almost every case material  
 To scriven from a ruler's inner book

Which often was a mess. So all in all,  
 I'd never want to say we can go back  
 To bitter olden days. The rain does fall

However, thus returning to a track  
 It flowed before. The memory must return  
 At least in flashing glimpses to the wrack

And ruin all around so it can learn  
 Or help with its supply of patterning  
 The something it is not to grow that fern.

A PhD'd be nice I often sing  
 Myself to sleep in moving clouds of thought  
 But that's been traded for a different thing

I cannot even partly say I've got  
 The skinny on canto 9. It's very dense  
 And rich in allegory, with concept fraught,

Like why's the silver key design-intense  
 Despite the golden one, a duo lifted  
 Whole cloth from other place, intent, and sense?

Some later day my oat may find it gifted  
 To parse it out. Today is not that day;  
 My whirling words have truly badly shifted

Far too much to continue in this way.  
 One thing that every brain does have to purge  
 Is fear. It locks and freezes, stunting every ray

Of everything beyond the whelming surge  
 Survival instinct reflex locks us to.  
 It's safe there in those bounds, but we emerge

As soon as chance permits so we can do  
 The image-making that makes better maps  
 Of where to set our feet. A deadly glue

Like flesh engrained with rusted chain enwraps  
 All future days and ways until we don't  
 Have automated pattern run our laps.

Our cities' roads and walls have surely grownt  
 To higher distances. One choice perhaps we face  
 Like 9 is that we can't look back or won't

Like Lot get where we're going, but in place  
 To salt -- a useful thing at times, or no --  
 We change. Far be it from me to know the space

Deciding this. Each individual can know  
 Or learn to know the water tension of  
 This membrane in their mind. We should allow

Ourselves and others all the calm above  
 And during living that we can achieve.  
*La Vita Nuova* listened first to Love.

A poet said once, amid a network weave  
 That human imaging should flood AI.  
 If rivers never inundate we grieve

The vegetative loss of silt and high  
 Begotten stalks of grain that turn the mill.  
 The city rulers rue the loss and sigh

"What can be done?" To this the singers still  
 Return us best to Nature's steady ways.  
 Somehow the picture changes with the rill

And ice-clear spring the oldest poet says  
 The Muses water from in every land.  
 AI can map the human with its rays.

"Robot" means work, which humans do by hand,  
 So let the poet be heard aright. We send  
 The love of verse we find but don't demand

A share but get one still, sage Dante penned  
 Of freed Statius all those years ago  
 To show that sharing doesn't having end --

It multiplies what all who have it know.  
 Thus artifacts the rivers we are bridge  
 And clothe, but human hands create and show

This other mirror-river like a ridge  
 Transversal over valleys makes a path.  
 When art and science conscience thus pay liege

Homage fears fade in calm, subtractive math.

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#### Notes:

1. "Flooding AI" and "bot" as hand are references to \_\_\_\_'s post below.
2. The printing press and use of vernacular (as by Dante) were in some ways kind of like an early internet.
3. Canto 9 ends with the image of hearing music and sometimes registering the words, sometimes not.
4. There's a theme of being assisted with continuing forward in Canto 9.
5. An AR work based in part on Dante's *Inferno* is now online called "VOIDOPOLIS" by K. Mustatea.
6. A good article on dream in *Purgatorio* 9 by M. Marmor is "'Par che sia mio destino': The Prophetic Dream in Leonardo and in Dante."

7. Gödelian uncertainty, flux, and unprocessability of image data in Dante, and their impact on post-medieval painting, has been written about by Martin Kemp in his 2021 book *Visions of Heaven: Dante and the Art of Divine Light*.
8. A good article about allegory in Leonardo and Dante by J. Keizer is "Leonardo and Allegory." The 2019 book by this author (which I just found online after writing the preceding poem, and have ordered but not read) is titled *Leonardo's Paradox: Word and Image in the Making of Renaissance Culture*. Here's a blurb: "In this book, Joost Keizer argues that the comparison between word and image fueled Leonardo's thought. The paradoxes at the heart of Leonardo's ideas and practice also defined some of Renaissance culture's central assumptions about culture and nature: that there is a look to script, that painting offered a path out of culture and back to nature, that the meaning of images emerged in comparison with words, and that the difference between image-making and writing also amounted to a difference in the experience of time."
9. Columbia University's "Digital Dante" website has the original Italian, multiple translations, and interesting commentary about the *Commedia* and other works.

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9-18-27

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Now that I am at the half-way point of this book, about *Esperienza* and *il Vestito di Fortuna*, it seems proper to make the plan and route more clear. In simple terms, to connect or loop back as it were to a meaningful place, meaningful at the time yes but even more meaningful now given what has happened since, I should like to mention *Six Memos* to take us back to where it all began, this second of three books about the *Mona Lisa*.

On pages [A-B] of "Visibility," the fourth memo, Calvino explains how images rain down into the fantasy (or high imagination, as opposed to daydreams or dreams, that imagining which is susceptible to our efforts) by discussing a key trio in *Purgatorio*: the three prophetic dreams. These dreams confirm that visual and verbal imagination are both part of one flowing stream, as Leonardo explicitly stated, and since they speak in allegory (as Marmor and Keizer amply show) we must wear what fortune weaves for us, at least for a day, then see and hear Leonardo's written allegory of *Esperienza* presented in paint.

Also: you must take a leap of art to see this. Leonardo designed it that way. A simple imitator of science, or plain replicator of art, cannot see it. One must use both feet, and be in motion. A simple illustration from Dante is his explanation of the canzone or song form in *De Vulgari Eloquentia* – a form that mixes words and music. Dante aside, try to think of some aspect of art you do, you the Reader, with both feet so to speak and not merely by standing and looking. It could be tennis, it could be drumming, it could be guitar or piano, or even t'ai chi. It should be something where you have some beginner's mind as they say in zen, improvisational sense, or crossover skills (like applying your tennis technique -- a word which I learned yesterday, ironically, like all techne words derives from the Proto-Indo-European root for "to weave" -- to basketball or yoga). It should probably, this faculty to use for comparison, not be something you have a degree in or are celebrated for by society, friends, or family. It's a learning zone for you, where you know how to enjoy the learning and practice for its own sake not for a pay day. Leonardo hid his message, if only slightly and temporarily as Beatrice hid her smile from Dante in *Purgatorio*, behind such a veil so that adversaries and persecutors of limited ability might be slowed enough. Call it a medieval test of virtue as in the old chivalric tales, if desired.

You could also think in terms of being a detective, agent of espionage, or stage actor. Renaissance Florence had many of each of these, and everyone had to have a few skills from this selection just to function daily. It was part and parcel of daily life. People sleuthed, spied on each other, and played roles very creatively with the diligence demanded by survival. We shouldn't be shocked by this: to think of Leonardo and his contemporaries as naive hobbyists of art and science is a grave misunderstanding and serves only to reduce Leonardo's development psychologically to that of a thirteen year old. We readers of English need only glance to our Bard, Shakespeare, to see that in the sixteenth century everyone knew that we are merely players, performers and portrayals, as well as spies on ourselves and our neighbors. How similar this atmosphere is to today! Yet so much of the theoretical rhetoric of academic experts, extracted full fruit from Machiavel, treats the Renaissance as

worse than premodern. Very little could be further from the truth. Leonardo's Florence was astonishingly similar to postwar Berlin.

I'll even indulge myself, in these last two thousand words of this chapter, to say that Leonardo is very much like Hamlet: one who knew, and felt the need to act, but was outnumbered almost infinity to one. He used discretion, imagination, and improvisation by necessity, daily, to survive the elements of nature both human and inorganic. If you haven't read *Hamlet* recently, you could do much worse than to read it with a copy of the *Mona Lisa* adjacent, if your wish is to follow the second half of this book with alacrity and insight.

Yet better than all this advice is to try to see Leonardo as you see yourself, with all the same feelings, thoughts, contradictions, curiosity, skills, and hopes. Think of the *Mona Lisa* as a mirror in which you can see both Leonardo and yourself on many levels. Put another way: approach the painting as you would a living being. Or, if it suits you better, recall that Leonardo designed an animal-shaped robot that rolled up to a person of very high rank and then, a door opening in its chest, presented a bouquet of flowers. For all intents and purposes, Leonardo is the same as you.

An article yesterday about AI in Quanta Magazine is interesting in that it says neural networks struggle to discern whether two images are the same or different. To me this is quite interesting. Humans are good at it, perhaps, because we see from many angles and lenses then blend it all in our imagination, our internal imaging. Image is a noun and a verb. To me this illustrates how art must be braided with science, Fortuna with Beatrice (which has four syllables in Italian we must remind ourselves), like distinct flowing streams in any complex system.

Regardless of any of the above, showing how such flowing vortices can and do interact and braid is the subject of the *Mona Lisa*. Just look for helical shapes, and then look for relationships among them. The relationships can be spatial, visual, geometric, symbolic, allegorical, or scientific, among other

forms, with really no limits at all on the type of relationship. Even the relationship between our eyes and Mona Lisa's eyes is a double-helix as is the path of a tennis ball in play mapped in three dimensions relative to the sun (not to the center of the earth which says something).

Yet another welcome serendipity here, in this brief reflection on heuristics, is *War and Peace* – that is, the astronomical interludes in Tolstoy's great tale of human history. The planets revolve, but we don't feel it because we are on one. Planets and their observation are a useful category which crosses most realms under discussion here; *Six Memos* and the *Commedia* are both based on them, as are several days of the week, Leonardo's incisive physics on several matters not least the moon and sun, and all stone circle traditions.

There is so very much that's relevant I have to make some fast Sagredo-like choices of when to cut to the chase. Or is it Salviati? (Turns out it is Sagredo, in *Six Memos*, "Quickness.") Fortunately Leonardo does this with relish. I have to choose a center, and for this book it is the three dreams in *Purgatorio* which express Dante's theory of the imagination – which, as he states in Canto 9, is at times the closest to prophetic vision humans can have – and hence relate Dante's center to Leonardo's in terms of allegory, the fabric of visual and verbal imaging, the role of choice, and the great power of time (plus many more). The dreams are a proper center I truly believe for viewing Dante and Leonardo in one frame of understanding. (Please set aside the hypothesis, at least for a moment, that the towering figure of Italian literature would have no relation to Italy's greatest artist and scientist even though the latter read the former diligently and in depth and told us so in pen and ink, often, and how.) One could think two- or four- part centers are preferable, but Dante loved threes, and the ML is without question a stable triangular composition, so three it is.

In a sense, Hamlet is the archetypal spy of all European literature but Dante's character in the *Commedia* is close in venturing through the afterlife, all three realms, before death and returning, to everyone's shock including Eliot's in *Prufrock*:

S'io credesse che mia risposta fosse  
 A persona che mai tornasse al mondo,  
 Questa fiamma staria senza piu scosse.  
 Ma perciocche giammai di questo fondo  
 Non torno vivo alcun, s'i'odo il vero,  
 Senza tema d'infamia ti rispondo.

Yet what about the dreams, the three dreams? The first is in Canto 9, when Dante falls asleep due to still having a body. He dreams a giant eagle, coincidentally drawn exactly the same by Botticelli then, decades later, by Leonardo, swoops down and seizes him in its talons, carrying him upward into the realm of fire in the sky where both are burned with great pain, which wakes Dante up. It then turns out he was carried up the hill by a charitable Saint Lucia, from the plain below the entrance to Purgatorio up to the Golden Gate. That's the whole dream. If you are interested, I recommend reading Canto 9 (the *Digital Dante* online by Columbia University is very good, and has explanatory commentary too which I have sometimes read, sometimes not, both agreeing and disagreeing in focus or fact depending on the time or place).

The second dream I can't recall just now. It's in Cantos 18 and 19, and represents the visually poetic distillation of a philosophical explanation Virgil has just provided to Dante. I'll be darned if I can't remember it right now – have to check my book as all I can think of is the third dream which is about Leah and Rachel I think. I changed my mind, and will try to remember the other dream without checking the book.

The math part of this book, just as that of the first was kind of category theory or applied category theory (ACT), for this book I will choose it to be the math of Quantum Field Theory which to me

seems interesting and in flux, and may end up being something like the math which Santillana ascribes to Leonardo as a highly unique mathematics, akin to the pre-Socratics in some ways, yet very primordial just as quantum field theory math seems to need to be. I'm not saying Leonardo invented quantum field theory. I'm just saying, as a thought experiment, let's compare Leonardo's special math theory to quantum field theory math. It's just an algebraic exercise, "let  $x = a$ ." If it amounts to nil I'll admit it and take the loss, but I'll probably stretch pretty far to find a similarity since as Kemp writes, Dante's theory of light is very close to Gödel and Gödel is both math and indeterminacy (or, consistency with incompleteness) which may relate to quantum field theory.

Dante's dream of Leah and Rachel is about two forms of the life of imagination, the active and the contemplative. This is symbolized in the dream by Leah, who weaves, and Rachel, who looks in the mirror. The dream is also a premonition within the poem of the arrival of Matelda, who is compared to Leah, and Beatrice, who is compared to Rachel. Think of the imaginative life as occurring in one form through the hands, and the other through the eyes. For Beatrice, this life-spirit of imagination is radiated in many ways to Dante, with the primary being her eyes, words, and smile. It must be considered certain that all poetry in Leonardo's time understood the smile of the Beatific Lady as a philosophical and aesthetic reality at the core of imaginative life that relates to all spheres.

What is the other dream? I'm drawing a blank sadly. Checking the book, I remember now: wait, I didn't check the book yet. The dream of Leah and Rachel, is it the second or third? Matilda appears just after the third dream I think. The second dream is preceded by a great philosophical conversation about free will and how love is the animating force behind all phenomena.

Darn it, I'm embarrassed that I forgot the second dream is about Circe, which is also a very short dream. I think it means, "don't think you know everything, don't just say what feels good to hear, pay attention to reality which is sometimes not what you want it to be." It's a call to pragmatism I would

say, in a nutshell. I'm not sure whether and how Leonardo parallels this dream but I would hazard a guess that he does so with Envy who he allegorizes as withered and decaying but full of hate and desire to harm. But why would Envy be attractive like Circe? Circe does seem to be envious, but what is the motivation to hear the song? I think it originates in the wish to hear that we are right, or good, or worthy, i.e., flattery, that we "have arrived" when in truth that's not true. Perhaps Envy wishes, as Dante portrays the error, that others not do well or have good fortune. Leonardo allegorized Envy as the enemy of Virtue, and viewed worldly success like money as a false goal for artists and scientists. Perhaps this is enough to compare the second dream, of Circe, to Leonardo.

I might also need to include an art work of my own, called *Solstizio Calvino*, which just finished two days ago. It is just a stone circle activity about Calvino's *Six Memos* and was in the Nevada desert this year. Next year it will be by a river. Thinking of it reminds me that Dante insists Purgatorio is difficult. This conforms to how fine motor skills require episodic stress in order to form the necessary spikes in neurons (though chronic stress, and lack of rest after work times, withers the spikes).

As Calvino quotes *Purgatorio* 17 in "Visibility":

O imaginativa che ne rube  
 Talvolta si di fuor, ch'om non s'accorge  
 Perche dintorno suonin mille tube,  
  
 chi move te, se 'l senso non ti porge?  
 Moveti lume che nel ciel s'informa  
 Per se o per voler che giu lo scorge.

He paraphrases:

O imagination, you who have the power to impose yourself on our faculties and our wills, stealing us away from the outer world and carrying us off into an inner one, so that even if a thousand trumpets were to sound we would not hear them, what is the source of the visual messages that you receive, if they are not formed from sensations deposited in the memory?

Then this interpretation is offered:

Dante speaks of the visions presented to him (that is, to Dante the actor in the poem) almost as if they were film projections or television images seen on a screen that is quite separate from the objective reality of his journey beyond the earth. But for Dante the poet as well, the entire journey of Dante the actor is of the same nature as these visions. The poet has to imagine visually both what his actor sees and what he thinks he sees, what he dreams, what he remembers, what he sees represented, or what is told to him, just as he has to imagine the visual content of the metaphors he uses to facilitate this process of visual evocation. What Dante is attempting to define, therefore, is the role of the imagination in the *Commedia*, in particular the visual part of his fantasy, which precedes or is simultaneous with verbal imagination.

In this sense, chance and the unpremeditated merge with active experience to weave the fabric produced for human purposes, a process which in such cases we call imagination.

Graphic 6

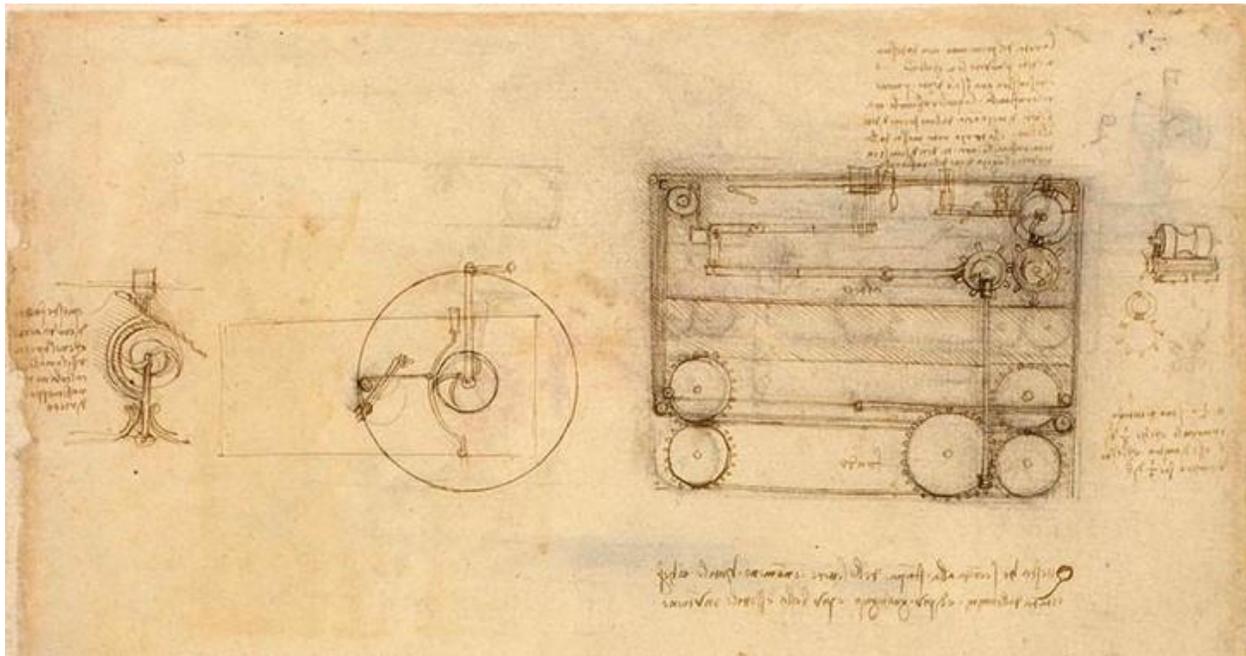


Web log 7

# The Mindful Mona Lisa: Weaving to Simplify

By Max Herman

Friday, 07/02/2021



Surprisingly enough, the words “[technology](#)” and “[text](#)” both derive from the same Proto-Indo-European root “teks-” meaning “to weave.”

Weaving is ancient, and important. It pervades the [mythology](#) of many [cultures](#), and was associated in ancient Greece and Rome with the [Fates](#), Circe, and Fortuna thus informing concepts of the future, luck, and chance. In cutting-edge contemporary science, even topological models of randomness invoke the geometry of tangling and untangling by probability to create the myriad quantum [fields](#) of physics.

Weaving involves two primary operations: to twist many short fibers into a long thread, then array the one-dimensional thread into a two-dimensional [fabric](#) by a matrix of alternating overlaps. Meshing the vertical and horizontal strands creates a plane which can store heat, block the

elements, and display color or symbol for cultural purposes. Throughout history, from medieval Florence to the British Empire, textile manufacture has undergirded political and economic power. Leonardo's design for a mechanical loom thus foresaw one of modernity's core technologies.

Weaving brings together, and with its [implicit](#) property of entanglement can form knots or traps: [web](#) is from weave. Yet it can also simplify.

Examples of the many weaving metaphors included by Dante (whose 700th anniversary is this year) in his *Commedia* include "knots of debt" in *Purgatorio*, frequent references to the Fates' thread, pervasive [chiastic](#) double-helix motifs, and the "protracted [knot](#)" (*pertrattato nodo*) of celebrants in the pageant of *Purgatorio* 29.133.

The central dream episode in *Purgatorio* 19 metaphorizes clothing as both text and deception in an image almost certainly known to Leonardo, and weaving themes appear in his own works such as the *Madonna of the Yarnwinder*, his designs for rope-making and cloth-cutting machines, and more figuratively the finger [touch](#) in the *Mona Lisa* (allegorizing how the hand and bridge in tandem weave the garment).

Dynamic network relationships can make single-function mechanisms redundant. For example, the cortex of [birds](#) is not an anatomical structure but a [network](#) property. In astronomy the removal of epicycles simplified, whereas elision of relationship can necessitate mechanical additions.

Reductive discreteness in mapping complex systems can thus amplify error terms exponentially. To circumvent this risk, the human brain uses myriad [poetic](#) modes which are algebraic and thus analog. "The toaster is like skiing;" "the toaster is like a cactus;" or even, "the toaster is a skiing cactus." The brain does not merely execute pre-existing code to produce meaning, but [improvises](#) in real time throughout its functions. This may constitute a significant distinction between organic and machine information, and the yen for inordinate machine control can distort both the [art](#) and science of [biological](#) consciousness. It can also mystify technology causing a kind of conceptual blindness.

Metaphorically speaking, if the history of technology is weaving what must the [bridge](#) that leads to weaving be? Perhaps something comparable to a confluence of art, humanity, and nature in a concrete temporal flow resembling a river. In any case, all things circulate through and around the center in the *Mona Lisa* and Dante's consciousness revolves in harmony with "the love that moves the sun and the other stars." [Labyrinth](#), maze, and puzzle imagery in Dante and Leonardo (as described by [Calvino](#)) and across diverse

cultures can create meta-awareness or [negative capability](#), like the moon reflected in water, that clears the imagination to begin afresh.

Perhaps tellingly, it was not until 1905 that science finally subtracted the pre-Socratic theory of cosmic "[aether](#)" by means of special [relativity](#) – a weaving of energy, matter, and the speed of light that simplified.

Next blog: the random geometry of planets

## Essay 7

Now that I am halfway through this work  
 The fundamental earth will be my ground.  
 Simply said, like goodly to the kirk  
 Be such a jocund company my sound.  
 If a simple pattern can't be found,  
 That makes a sparkling stream of history's murk  
 Gathering spokes and banding to the round  
 Rotating daily guide my solar dirk.  
 Sirena's garment is the center lined  
 An alteration in each sequent mind  
 Homer, Virgil, Dante, Léonard  
 Suited rightly for Albion's bard.

A: I tried to do grisailles but they're more like drawings

A: Leonardo and Dante both changed the Siren myth from Homer

A: So did Virgil, so I have to check the progression

A: In Homer, Odysseus sailed past the sirens tied to the mast of his ship. Circe had enticed him to stay with her using her voice, beauty, and promise of knowledge, but he left her of his own will.

A: In Dante *Purgatorio* 19 (at DigitalDante.org) the Siren entices him with her beautiful voice, words, and looks, but she adds "I who turned you from your way" which means Circe. It's a composite figure that allows Dante to bring in Beatrice who admonishes Dante for drowning his artistic sorrows in philandering

A: Circe represents basically Dante sleeping around, which he did in real life

A: Including Circe also allowed Dante to bring in weaving, because Circe was a master weaver with a great loom on her island. This gives the siren's dress in *Purgatorio* 19 added meaning (because sirens, though kin to the muses, do not weave)

A: Thus, the dream is super concise: the ugly siren appears to Dante, she turns beautiful as he gazes at and listens to her, a woman's voice says "Virgil who is this woman?", Virgil tears the siren's dress open, and the bad smell wakes Dante up.

A: Virgil, the "true poet," acting at the request of Beatrice who is spiritual or true love, tears away the false poetry and visual art of the siren to show the decay it covers.

A: This sums up the whole *Commedia* really in one quick image, which Dante did a lit

A: Lot

A: But how does Leonardo change it?

A: He was much less prone to sleeping around and never put his art to the wayside like Dante did

A: Leonardo had a pretty balanced sex life

A: So naturally he felt Dante's story was a bit macho and priestish

A: Leonardo changed the Siren from a seducer into an assassin – she lulls the sailor (artist or poet in Dante's symbolism are like sailors and art or poetry are the boat) to sleep, boards the boat, and kills the sailors

A: This is a totally different perspective

A: The sirens are the authorities who would put Leonardo to death for his art if they could

A: They are also the false artists just in it for money, power, greed, etc

A: They look impressive and often have money or status but their true motivation is to kill the true free artist or poet

A: Leonardo allegorized this malevolent, ugly, corrupted figure as Envy, whose primary motive and desire was to kill Virtue

A: By changing the siren from seducer to assassin Leonardo breaks the whole allegory wide open, beyond a crude contempt for sex and women into a parable about corrupt power period

A: It becomes a critique of all human history and society

A: And who does Leonardo produce as the guide and rescuer? Not Virgil, but the ML

A: He knew you can't just tear down the addiction, you have to create and live the real life of art to really get free

A: That's the great shift from medieval to modern

A: This is the line of bull I'm going to run with for book 2

A: It doesn't have to be true, just interesting! Though my gut instinct is that it's true

B: It makes sense

A: I just thought of it

A: Like, why would Leonardo change the sirens into assassins?

A: Sailors die chasing them, but it is by crashing on rocks and drowning, or if they make it to the shore, getting cannibalized on the sirens' island (in some variations)

A: They never, ever go onto the boats to kill the sailors

A: Except in Leonardo's version

A: Dante changed up all the stories from Virgil and Homer, and Leonardo did the same with Dante. Like musical improvisation (which Leonardo was very good at in real life, he sang well too)

A: Sang well

A: I think Leonardo felt Dante and Italy overrated poetry

A: He wanted to even up the score 😊

A: He didn't respect Italian machismo with all its violence and horseshit philosophy

A: Leonardo also used a figure of speech repeatedly in his own defense from criticism that the censors and authorities directed at him: "let me wear the clothes I make for myself."

A: He said, "you condemn me based on your robes of authority, which you didn't make for yourself, and won't allow me to make my own robes. But those you have borrowed or stolen were made by people like me, in the same way I am making my own now."

A: He was using the basic parable of "borrowed robes"

A: How can you ever hope to defeat that shit? He decided to use a "time capsule" kind of strategy, which goes all the way back to prehistoric funerary tombs

A: You bury the art so that the goons and idiots can't destroy it

A: But in Leonardo's case he didn't so much bury it as "weave it in," which in reality amounts to a theory of vaccination

A: He tried to inoculate people of the future from being put to sleep by sirens

A: Leonardo's greatest achievement may have been literary, not least because even 500 years later no one thinks he was even a writer!

A: Just speaking as a former academic there's plenty of evidence to launch a full reassessment of Leonardo and thus the entire renaissance and everything after using a combined literary and art historical approach

A: Find the time capsule with some helpful context from Dante

A: Then rethink the best way forward for the next century accordingly

A: It's a proper subject matter for this time of crisis we are in: don't panic, but do take a good look in the mirror

A: So after I finish the Dante/siren book this year I'll write the final book of the trilogy about Machiavelli next year, ie, how Leonardo and the ML can be a guide for transcending the politics of force and fraud

A: Essentially how to protect the ideals of the Constitution ie democracy from nihilistic authoritarianism and greed

A: At least how to keep the ongoing project afloat and on course as well as possible

A: Machiavelli had a radical philosophy, which was that the purpose of art is to help autocrats kill their enemies better. Leonardo saw this bullshit and knew it would dominate modernity, so he took steps to counter it (or steps to help us of the future counter it better)

A: Sorry for so many texts, I can switch to email for such diatribes 😊

A: I'm hoping Virgil's interpretation of the siren myth in the Aeneid helps my theory

A: Machiavelli used weaving imagery a lot so I think Leonardo may be able to rout his defenses



A: I've grown very fond of Leonardo as you might have guessed, he knew the value of time and didn't mess about! He knew his limitations but saw his chance and took it, which I appreciate

A: It's silly but I visualize him as Fran Tarkenton throwing a hail Mary from 1500 to now, and I'm trying to be Sammy White 😊

A: It's juvenile but who cares, my inner child might be able to haul it in for the TD!

A: Now I have to figure out how to copy all that stuff for book notes, frustrating

A: What are you doing for the 4<sup>th</sup>? I was there for the 4<sup>th</sup> a long time ago

A: Emily's working so I might just be painting my house 😊

B: Sammy white fully stretched

B: I did that a lot too

+++

The poetry of Dante in *Purgatorio* 19 could not be more fundamental, so let's take a listen:

1 Ne l'ora che non può 'l calor diurno

2 intepidar più 'l freddo de la luna,

3 vinto da terra, e talor da Saturno

4 —quando i geomanti lor Maggior Fortuna

5 veggiono in orïente, innanzi a l'alba,

6 surger per via che poco le sta bruna—,

7 mi venne in sogno una femmina balba,

8 ne li occhi guercia, e sovra i piè distorta,

9 con le man monche, e di colore scialba.

10 lo la mirava; e come 'l sol conforta

11 le fredde membra che la notte aggrava,

12 così lo sguardo mio le facea scorta

13 la lingua, e poscia tutta la drizzava

14 in poco d'ora, e lo smarrito volto,

15 com' amor vuol, così le colorava.

16 Poi ch'ell' avea 'l parlar così disciolto,

17 cominciava a cantar sì, che con pena

18 da lei avrei mio intento rivolto.

19 «lo son», cantava, «io son dolce serena,

20 che ' marinari in mezzo mar dismago;

21 tanto son di piacere a sentir piena!

22 lo volsi Ulisse del suo cammin vago

23 al canto mio; e qual meco s'ausa,

24 rado sen parte; sì tutto l'appago!».

25 Ancor non era sua bocca richiusa,

26 quand' una donna apparve santa e presta

27 lughesso me per far colei confusa.

28 «O Virgilio, Virgilio, chi è questa?»,

29 fieramente dicea; ed el venìa

30 con li occhi fitti pur in quella onesta.

31 L'altra predea, e dinanzi l'apria  
 32 fendendo i drappi, e mostravami 'l ventre;  
 33 quel mi svegliò col puzzo che n'uscita.

34 Io mossi li occhi, e 'l buon maestro: «Almen tre  
 35 voci t'ho messe!», dicea, «Surgi e vieni;  
 36 troviam l'aperta per la qual tu entre».

And, for those of us who barely know any Italian at all:

In that hour when the heat of day, defeated  
 by Earth and, sometimes, Saturn, can no longer  
 warm up the moon-sent cold, when geomancers

can, in the east, see their Fortuna major  
 rising before the dawn along a path  
 that will be darkened for it only briefly—

a stammering woman came to me in dream:  
 her eyes askew, and crooked on her feet,  
 her hands were crippled, her complexion sallow.

I looked at her; and just as sun revives  
 cold limbs that night made numb, so did my gaze  
 loosen her tongue and then, in little time,

set her contorted limbs in perfect order;  
 and, with the coloring that love prefers,  
 my eyes transformed the wanness of her features.

And when her speech had been set free, then she  
began to sing so, that it would have been  
most difficult for me to turn aside.

“I am,” she sang, “I am the pleasing siren,  
who in midsea leads mariners astray—  
there is so much delight in hearing me.

I turned aside Ulysses, although he  
had longed to journey; who grows used to me  
seldom departs—I satisfy him so.”

Her lips were not yet done when, there beside me,  
a woman showed herself, alert and saintly,  
to cast the siren into much confusion.

“O Virgil, Virgil, tell me: who is this?”  
she asked most scornfully; and he came forward,  
his eyes intent upon that honest one.

He seized the other, baring her in front,  
tearing her clothes, and showing me her belly;  
the stench that came from there awakened me.

I moved my eyes, and my good master cried:  
“At least three times I’ve called you. Rise and come:  
let’s find the opening where you may enter.”

There is an ugliness to this dream sequence, a medieval characterization of male incontinence as female pollution which amounts to plain old blame-shifting, but this shouldn't stop us from asking whether and how the sequence was interpreted by Leonardo. It doesn't confer approval of Dante's image to evaluate its history and influence; in fact there is arguably greater accountability in doing so. No need to belabor this.

The point is, that Leonardo morphed this dream greatly and took it to a much higher level of complexity and power. This is my hypothesis anyway.

Picture it this way: The *Mona Lisa* is a composite of Beatrice and Fortuna, in an allegorical portrait of *Esperienza*, wearing a legitimate, honest, and true garment. She is the antithesis of Dante's siren, and within the garment is not decay or blameworthy corruption but healthy human biology. Where Dante rejected what he considered evil, Leonardo created a directly experienced good. This is a very different approach, and merits the status of an evolutionary turn. One can think of it as a completion of the turn from the medieval to the modern, knowingly and with elegant engineering design, by the greatest artist and writer of the High Renaissance in direct reply to the greatest of the Early.

We can of course and should read with deep consideration Leonardo's fragment, a form he used as touchstones or key nodes and not, not by far, trivial afterthoughts: "The siren sings so sweetly that she lulls the mariners to sleep; then she climbs upon the ships and kills the sleeping mariners."

Yet we should also read his crucial writings on Envy: "Envy wounds with false accusations, that is with detraction, a thing which scares virtue." And, "Wherever good fortune enters, envy lays siege to the place and attacks it; and when it departs, sorrow and repentance remain behind."

And here, from the Richter, 677 on Allegorical Representations:

“Envy must be represented with a contemptuous motion of the hand towards heaven, because if she could she would use her strength against God; make her with her face covered by a mask of fair seeming; show her as wounded in the eye by a palm branch and by an olive-branch, and wounded in the ear by laurel and myrtle, to signify that victory and truth are odious to her. Many thunderbolts should proceed from her to signify her evil speaking. Let her be lean and haggard because she is in perpetual torment. Make her heart gnawed by a swelling serpent, and make her with a quiver with tongues serving as arrows, because she often offends with it. Give her a leopard’s skin, because this creature kills the lion out of envy and by deceit. Give her too a vase in her hand full of flowers and scorpions and toads and other venomous creatures; make her ride upon death, because Envy, never dying, never tires of ruling. Make her bridle, and load her with divers kinds of arms because all her weapons are deadly.”

And this: “No sooner is Virtue born than Envy comes into the world to attack it; and sooner will there be a body without a shadow than Virtue without Envy.”

I know I’m asking a lot, for example, to entertain the hypothesis that Leonardo was as accomplished a poet (in Shelley’s sense, which includes all the arts) as Dante and took simpler concepts from the latter and brought them into a level of modernity comparable in subtlety to Shakespeare’s. But there it is: where T.S. Eliot said “Dante and Shakespeare divide the world; there is no third,” I would fain assert Leonardo’s claim. Of course, Eliot had reservations about Leonardo, calling the *Mona Lisa* the *Hamlet* of painting since everyone has an interpretation, but the same reservations must apply to Shakespeare and are not in the end of substance. *Hamlet* is not about a weak decider, but about reality.

If it helps, think of me as a novelist inventing an enormous web of fiction, suggesting that Leonardo was as modern as you, me, and Shakespeare, if not more. He used asides and deception like Hamlet did, not even emptying his guts to good friends like Rosencrantz and Guildenstern. He struggled with perhaps illegitimate powers of authority who recked not their own read.

Or consider Leonardo a Sherlock Holmes, who knew the horrid fate of Archimedes – a body with a vast mind destroyed by a body with a tiny one – and of Socrates, and more, and decided to play a long game. One can say “he was a science person, a nuts and bolts engineer, with none of the performative

or theatrical sensibility of Shakespeare much less today's postmodern jesters." Yet face this fact, friend: Leonardo engineered theatrical performances, designing everything from concept to costume, machinery to music, at the very highest level of the High Renaissance, and multiple times. So don't bring me this hogwash that he was some kind of narrow test tube juggler. You disrespect Leonardo when you do that and undermine your own claim to be worth listening to. Or: "That's fucking bullshit!" Or, "You are a fucking idiot."

That note I heard was of a sterner song, and I will keep a bower free for sleep, and sweet dreams, without such cursing, although with that exception just like Dante's. (He used harsh language in the gargoyle canto.)

Leonardo saw Envy as a Siren, and both as assassins. But blame was not his mission. He was the top military strategist and defense contractor of his era, building for the main military organizations both offense and defense capability. He didn't really want to settle for a moral victory. Is it really moral, as one's epitaph, to have not attempted at least to contribute to a real victory? No, and this is Leonardo's Beatrice, that which guides where reductive logic quails, it is *necessita* to try.

What would it or could it mean for Virtue to survive? To be defended, not tragically, but successfully, and not corruptly but deservedly? Envy's drive or *forza* is to turn Virtue into itself – to make copies – and thus for Virtue to prevail or even just survive it must remain Virtue. And what is Virtue?

Virtue is that which should guide our choices, such as they are and when we have them; and as Leonardo spelled out in pen and ink in his own original hand the guide must be *Esperienza*. The authorities, the copyists, accuse her of deceit but they are antipodal to correct. Leonardo tells us this, plain as day and as night, in virtually dozens of allegories, concise though they may be:

“Experience, the interpreter between formative nature and the human race, teaches how that nature acts among mortals; and being constrained by necessity cannot act otherwise than as reason, which is its helm, requires her to act.”

“Wisdom is the daughter of experience.”

“Experience never errs; it is only your judgments that err by promising themselves effects such as are not caused by your experiments.”

“Experience does not err; only your judgments err by expecting from her what is not in her power. Men wrongly complain of Experience; with great abuse they accuse her of leading them astray but they set Experience aside, turning from it with complaints as to our ignorance causing us to be carried away by vain and foolish desires to promise ourselves, in her name, things that are not in her power; saying that she is fallacious. Men are unjust in complaining of innocent Experience, constantly accusing her of error and of false evidence.”

“Every instrument requires to be made by experience.”

I accept that these writings from Leonardo will not, or may not at first, make much sense to you. But listen as you would to a friend trying to tell you something important (at least to them) and you will get the sense of it. Or even, try having a conversation with a real live friend about what Leonardo said just there. Who is this Experience, this person, this figure, he is talking about? Isn't she like the *Mona Lisa*, or maybe even the *Mona Lisa* for real?

Just consider this from Marmor regarding Leonardo's account of his dream of the kite, as we ponder *Purgatorio* 19:

“Leonardo's prophetic dream narrative reflects, in its specific language, poetic conventions familiar to Leonardo from his reading of Dante's *Divina Commedia*, and especially from Dante's prominent narratives involving prophetic dreams.”

And this:

“Dante describes or alludes to prophetic dreams no fewer than five times in the *Divina Commedia*, twice in the *Inferno* and, famously, three times, always at critical passages in his narrative, in the *Purgatorio*.

“Particularly significant in our context are the three prophetic dream narratives in the *Purgatorio*. These key passages are pivotal to Dante's narrative, as even his earliest

commentators rarely failed to emphasize, and they culminate in the final cantos of the *Purgatorio* with the famous Dream of Leah, on the eve of the poet's entry into the Earthly Paradise."

And finally, for now, of course, this:

"In *Purgatorio* XIX, to which we will return below, Dante has a second prophetic dream, in which

he beholds a Siren:

Ne l'ora che non può 'l calor diurno  
intepidar più 'l freddo de la luna,  
vinto da terra, e talor da Saturno  
...mi venne in sogno una femmina balba ...  
(Purg. XIX, 1-3, 7)

"The series of prophetic dreams in the *Purgatorio* culminates with the climactic Dream of Leah in Canto XXVII. Here Dante "seems" to behold in another early morning dream the biblical figure of Leah. For Dante, as for his early commentators, Leah was the embodiment of the *vita activa*, much as her sister and companion Rachel was an emblem of the *vita contemplativa*. Dante's Dream of Leah is a premonition of his imminent encounter with Matelda, the resident spirit of the Earthly Paradise, atop Mt. Purgatory: ... mi prese il sonno; il sonno che sovente, anzi che 'l fatto sia, sa le novelle. Ne l'ora, credo, che de l'orienteprema raggiò nel monte Citereache di foco d'amor par sempre ardente, giovane e bella in sogno mi pareo donna vedere andar per una landacogliendo fiori; e cantando... (Purg. XXVII, 92-99)

"Here Dante introduces his dream narrative with the same phrase he had employed in

*Purgatorio* IX: "in a dream I seemed to see" – in sogno mi pareo ... vedere.

"Dante in fact uses variations on this phrase almost as a leitmotif when he is relating a dream experience, not only in the *Divina Commedia* but elsewhere as well. Robert Hollander, a leading Dante scholar, has made a close study of the vocabulary and rhetoric of the dream sequences in Dante's *Vita Nuova*. From this study, Hollander deduces that "it is evident that in the *Vita Nuova* even common words like *vedere* and *apparire* are ... used 'technically' in a vocabulary ... that is impressively careful."

And then again, because of just how greatly I have to rely on Marmor's type of thinking, or

would like to try, here is what he writes about Leonardo's *Of Dreaming*:

"Here, in what is clearly a self-consciously literary 'prophecy' devoted precisely to the subject of dreams, Leonardo employs – appropriately, in the future tense – exactly the same dream

rhetoric and vocabulary that we found in Dante's prophetic morning dreams and in Leonardo's own 'childhood memory.' In their dreams, men will 'seem to see' – *parrà vedere* – the calamities Leonardo describes. These parallels show that Leonardo registered the characteristic rhetoric and vocabulary of Dante's prophetic dream sequences and duly employed them in his own *profezie* – including not only the prophecy 'Of Dreaming' but also the prophetic *ricordo* we call the 'childhood memory.'"

This is what Leonardo wrote in *Of Dreams*:

"Men will seem to see new destructions in the sky. The flames that fall from it will seem to rise in it and to fly from it with terror. They will hear every kind of animals speak in human language. They will instantaneously run in person in various parts of the world, without motion. They will see the greatest splendour in the midst of darkness. O! marvel of the human race! What madness has led you thus! You will speak with animals of every species and they with you in human speech. You will see yourself fall from great heights without any harm and torrents will accompany you, and will mingle with their rapid course."

Note the use of "seem to see," which links directly to Dante's dreams. (Note the repetition, and that humans will become a river.) And even, as Marmor states, "In the course of this exploration, I briefly consider the possibility that Leonardo's last paintings, too, might bear some relationship to Dante's narrative techniques."

Leonardo, as a keen observer of nature, understood that processes are often paths with multiple stages. Complex phenomena don't just leap into existence full-grown; they gestate, follow stages, and undergo metamorphoses. For example, consider how he describes the geologic life of shells that carries them into mountain ranges:

"And if you should say that the shells were carried by the waves, being empty and dead, I say that where the dead went they were not far removed from the living; for in these mountains living ones are found, which are recognisable by the shells being in pairs; and they are in a layer where there are no dead ones; and a little higher up they are found, where they were thrown by the waves, all the dead ones with their shells separated, near to where the rivers fell into the sea, to a great depth; like the Arno which fell from the Gonfolina near to Monte Lupo, where it left a deposit of gravel which may still be seen, and which has agglomerated; and of stones of various districts, natures, and colours and hardness, making one single conglomerate. And a little beyond the sandstone conglomerate a tufa has been formed, where it turned towards Castel Fiorentino; farther on, the mud was deposited in which the shells lived, and which rose in layers according to the levels at which the turbid Arno flowed into that sea. And from time to time the bottom of the sea was raised, depositing these shells in layers, as may be seen in the

cutting at Colle Gonzoli, laid open by the Arno which is wearing away the base of it; in which cutting the said layers of shells are very plainly to be seen in clay of a bluish colour, and various marine objects are found there. And if the earth of our hemisphere is indeed raised by so much higher than it used to be, it must have become by so much lighter by the waters which it lost through the rift between Gibraltar and Ceuta; and all the more the higher it rose, because the weight of the waters which were thus lost would be added to the earth in the other hemisphere. And if the shells had been carried by the muddy deluge they would have been mixed up, and separated from each other amidst the mud, and not in regular steps and layers — as we see them now in our time.”

He also made a great many things, and knew all the stages of production, and even wrote the engineering plans and hired the workers and scheduled their hours and pay.

Therefore we should not ever wonder that when explaining anything, he is more likely to say “A relates to B, and B relates to C, and C relates to D” than to say “A relates to D.” So is it any wonder, that in trying to defend science and art for a long period of time he uses connected allegories rather than a blunt direct statement? To do the latter would have been to sacrifice not only his ability to do the former but even to do the latter. Besides, he wasn’t about tearing anything else down. He just wanted science and art, these human potentials of so much future importance, to be OK too. A fair balance is all, so he didn’t support Savonarola and the bonfire of the vanities like Botticelli and even Michelangelo perhaps did. Yet I digress.

It’s super interesting how Keizer talks about handwriting in *Leonardo’s Paradox*. If I don’t have time to discuss that book much I’ll at least say I think it is very important in understanding how Leonardo approached writing, and images, and allegory, and not just as a haphazard hobbyist but as an engineer of the finest skill operating at full capability often if not always and certainly more than often enough. He completely understood about resilience.

To see what I mean, and what I think Leonardo meant regarding Dante, try to think of writing as a garment, writing as weaving, machines as a garment, universities as a bridge, etc., as either simile or

metaphor or who knows even literally. Aren't cars a kind of clothing? Computers are kind of like gloves too. Leonardo asked only that authorities keep an open mind and let him make his own habit of science and art:

"I am fully aware that the fact of my not being a lettered man may cause certain arrogant persons to think that they may with reason censure me, alleging that I am a man without letters. Foolish folk! Do they not know that I may retort by saying, as did Marius to the Roman patricians: 'They who themselves go adorned in the labour of others will not permit me my own?' They will say that, because of my lack of book learning, I cannot properly express what I desire to expound upon. Do they know that my subjects are based on experience rather than the words of others? And experience has been the mistress of those who wrote well. And so, as mistress, I will acknowledge her and, in every case, I will give her as evidence."

The *Mona Lisa* is this witness, in all cases and for all time, a true guide and teacher and nothing like the false but rather our protector from the latter. This aligns somewhat with Beatrice's voice (as I identify it, but cannot prove it is) in the dream of the Siren as guide away from Envy, and possibly harmonizes with Dante's song in *La Vita Nuova* regarding Beatrice: "Her beauty is united with such virtue / that it inspires no envy in the others."

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On Canto 19

I can't conceal the problem I must face  
 In that the siren dream is anti-woman.  
 Perhaps it wasn't Dante but his place  
 In time that forced him into macho blaming.  
 Yet clearly some responsibility  
 Was shifted during old medieval times  
 From men with power, office, gravity,  
 To disenfranchised women using rhymes.  
 That Beatrice was chief does not atone  
 For symbolizing his own turpitude  
 As aging, ill, and feminine in sex.  
 A helpful turn or plait might be alone  
 To dream himself as withered, rank, and crude  
 In fancy dress, avoiding side effects.

Unfortunately for me and you both, dear Reader, I have not adhered to fundamentals very well in chapter seven. Everything is still whirling at a million miles an hour in a cloud of chaos. Yesterday I finally read chapter one of Keizer's book *Leonardo's Paradox*, 2019, and it was a treasure trove. I wish I had read *Convivio* IV.vi on my desert mountain hike in June, but I was too tired and the books were too heavy so I hid them by a cedar thinking 110 F might kill me if I didn't. In it, as I read in the Keizer, Dante explains how the word "author" derives from "*auieo*," obsolete Latin for "to tie words together," created strangely from a knot drawn through the vowels in said order. Leonardo also said that ideally the Painter "sits in front of [their] work with great ease, well-dressed and wielding the lightest brush with charming colors. [Their] clothing is ornamented according to [their] pleasure." How could someone like me, doing what I'm trying to do, not at least try to compare this to his story of Marius and the Roman Patricians, especially when I wrote that about Marius yesterday morning, before reading about the well-dressed Painter in the evening? Plus there's Cassandra in the *Aeneid*, a frustrating corollary, who I've seen this month reading book three. *Il pertratatto nodo* is an offering indeed musical.

I have to add a few more important facts about the Keizer book, and will need to cut some words out of the above quotations.

Important facts from the Keizer book:

- Leonardo put semi-legible letters in several garments he painted.
- He compared writing by hand to drawing.
- He valued handwriting above the printed word.
- He used notarial handwriting style, like his father and grandfather who were notaries.
- A notary back then was like an attorney; they wrote up official contracts.
- He said all arts, from drawing to writing, math to engineering, derived from line.

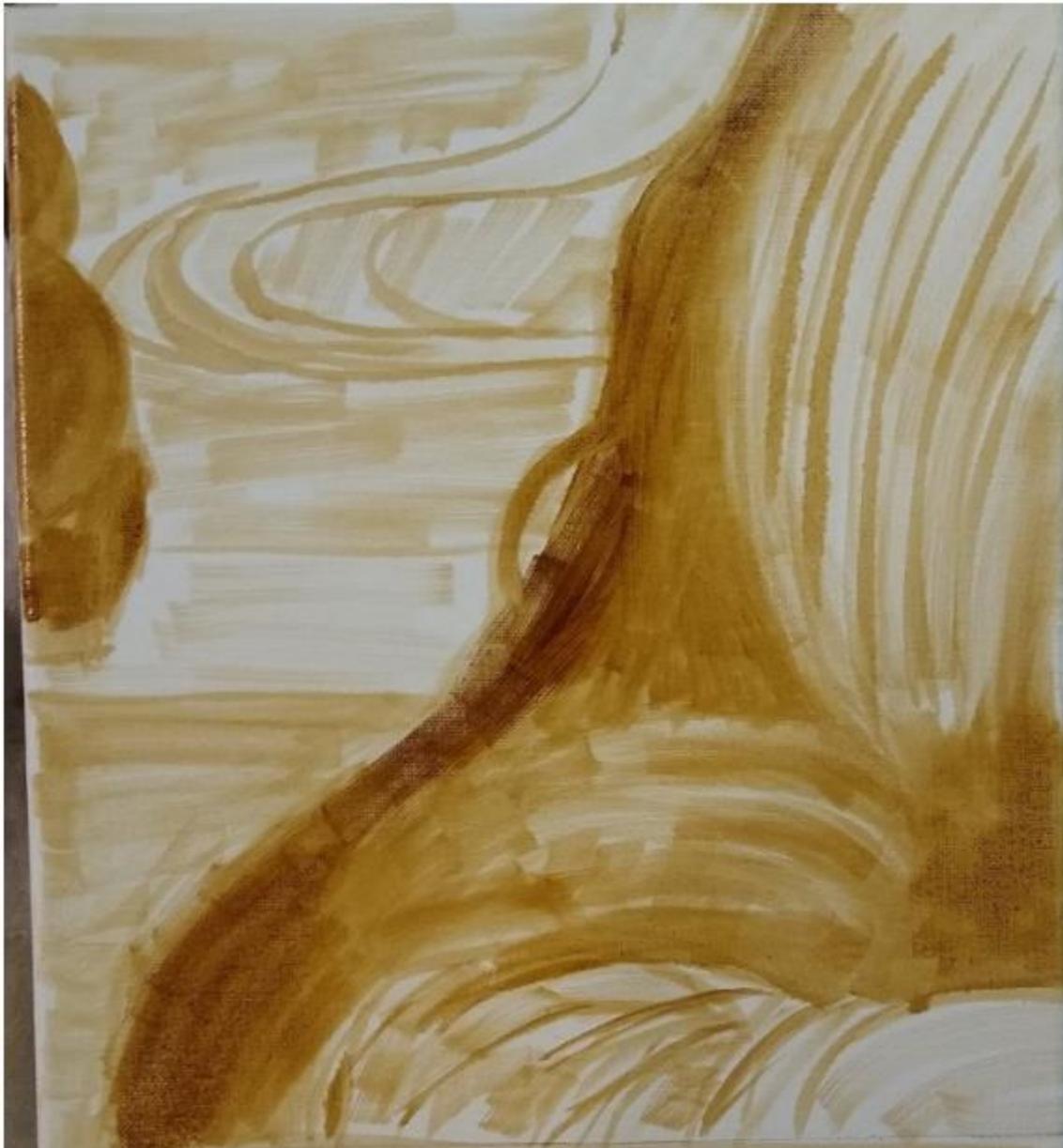
There is so much more, I will have to do notes for this book. Sad but true.

Perhaps out of all this I want most to say that people becoming a river is what I think the bridge in the *Mona Lisa* means, and all arts originating from line is what the finger-touch pointing to the garment means. It's about taking responsibility, I suppose, a humorous *profezia* easily found benign.

The final Cassandran algebra, I hope, for the chapter, just to get the Paris MS in: I was reviewing them to find an image of weaving for the blog. I noticed a funny sign in most, all but K perhaps, involving an O shape, S, or S bisected, or simple loop, on first or last pages or both like an autograph. I asked a friend if they were anything he recognized, or random, or put there by an archivist, making me an obsessive lunatic. Then I read in Keizer about little loop-knots Leonardo made with great consistency from early notebooks on. Then I read about the AEIOU knot, and after drawing it myself (ending the line not over the O, as one finds in the *Convivio* copy online, but in it) they seemed related.

Finishing this so early in the month I have time to paint and complete Shelley's *Triumph of Life* perhaps; how many cantos would it have been? I've thought about doing that since college. *Pontem veste textit.*

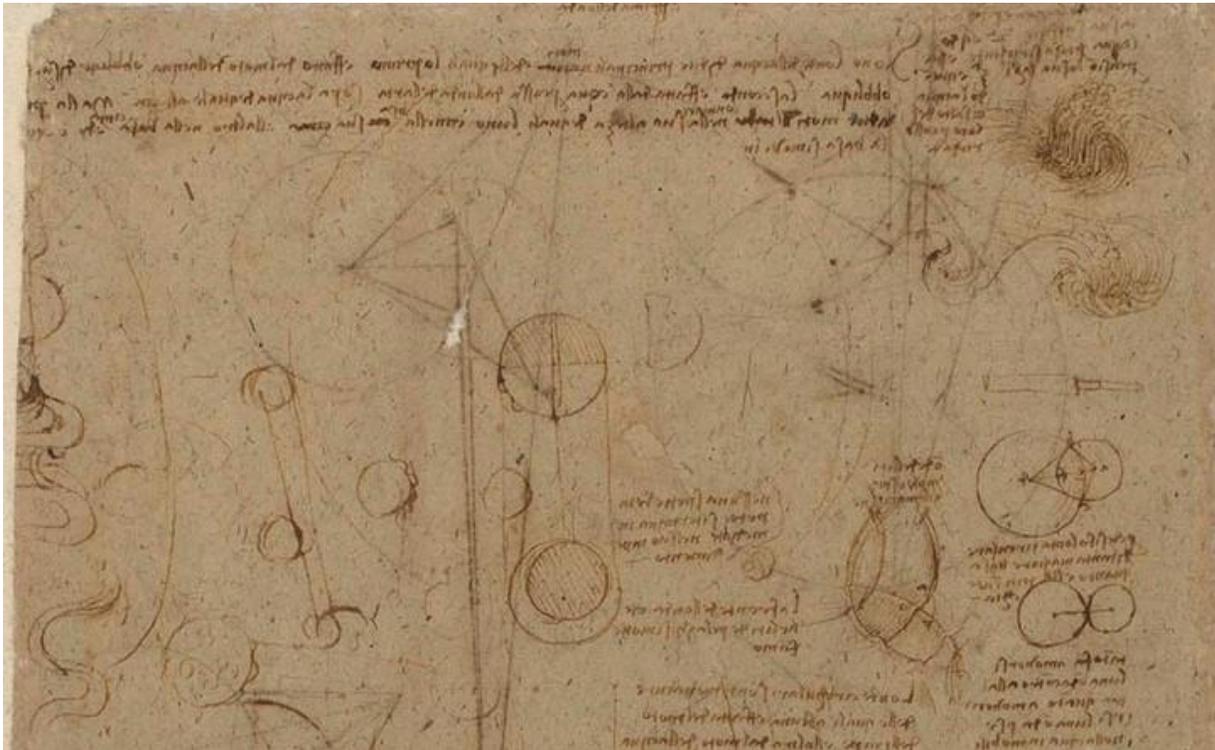
Graphic 7



Web log 8

# The Mindful Mona Lisa: Random Geometry of Planets

By Max Herman  
Wednesday, 08/04/2021



In Tolstoy's great historical novel *War and Peace*, the image of planetary orbits is used to illustrate how individual humans are moved in larger patterns which we cannot perceive because relative to us our setting seems static.

Yet while a planet's orbit is predictable and regular, events on its surface often are not. [Randomness](#) affects most phenomena to some degree, and even the constitution of matter itself is partly random. From an observer's perspective ten billion years ago the orbits of our solar system would be infinitesimally remote, unpredictable, and subject to chance.

In a recent [article](#) about quantum gravity, University of Pennsylvania mathematician Xi Sun states that “Quantum gravity basically means random geometry, because *quantum means random and gravity means geometry* (italics mine).”

Theories of history, such as that of the “Great Person” which Tolstoy questioned, try to explain why things happen, and predict what things will or must, but they are often just guesses. As Gödel's [incompleteness](#) theorem states, some things can be predicted by a system's axioms and some cannot. We have geometry and we have randomness, sometimes at the same time.

Fortune or chance, i.e. the random, was central in medieval and Renaissance thought. Dante describes [Fortuna](#) as an honored and divine power in [Inferno 7](#) and invokes *Maggiore Fortuna* before his prophetic dream in [Purgatorio 19](#). In the *Mona Lisa*, two hundred years later, Leonardo echoed Dante's description of Fortuna as well as Beatrice and [Matelda](#) from the *Commedia* (representing the *vita contemplativa* and *vita activa*, respectively, as in the prophetic dream of Rachel and Leah in [Purgatorio 27](#)). Leonardo's written allegories of *Esperienza* (meaning both “experience” and “experiment”) include attributes of Fortuna, and the fluctuating *chiaroscuro* stillness in his famous portrait aligns with medieval concepts of randomness within cycle.

In his writings and images Leonardo unites the unpredictable aspects of Nature, which can be observed but not foreseen, with the laws of physical science in ways that reflect his reading of Lucretius' [De Rerum Natura](#). Leonardo sees this union of pattern and randomness

reflected in culture as well as Nature, and in the complex evolving relationship between them.

*Esperienza* as personified in Leonardo's notebooks was a new concept in the western tradition, unique to Leonardo, and has to date never been proposed as the allegorical principle behind the *Mona Lisa*. For Leonardo, *Esperienza* embodies both of the word's meanings in Italian – experiment and experience – yet is neither a deity, ancient myth, nor stock medieval character. The concept resembles *il dolce stil novo*: natural and graceful, with a vernacular simplicity accessible to all, aesthetically pleasant and scientifically participatory to the fullest and most modern extent possible. The portrait resonates with Pythagoras' personification, cited by Dante in *Convivio* II, of Philosophy, who embodies the love of learning that metaphorically moves the solar system whose several orbits symbolize the ten Aristotelian sciences as planetary spheres or “intelligences.”

The *Mona Lisa* could well be Leonardo's reply to Apelles' legendary allegorical painting *Calumny*, now lost, which in the Renaissance was often cited as proof that painting could depict complex ideas and even philosophy visually. As Joost Keizer writes in *Leonardo's Paradox*, for Renaissance artists “Allegory was a means to experiment with the period's expectations of art. It tested what a less mimetic art could look like, what happened if art approached poetry, how art related to the legacy of the ancient past.” If *Esperienza* is the allegory depicted in *La Gioconda*, Leonardo would have meant for it to prove his assertion, quoted by Keizer, that although “painting does not speak, but rather demonstrates itself [in fact],” it nevertheless “brings philosophy and subtle speculation to the consideration of the nature of all forms.”

Hence the portrait may be *of* Experience and Experiment, but also *an* Experiment and *an* Experience, making the meta-awareness of its design – in Magritte's sense of “Ceci n'est pas une pipe” -- far more richly complex in its modernity than previous scholarship has recognized.

Since Leonardo himself never attached a title (or any words at all) to the famous *La Joconde*, perhaps it is appropriate to try the name *Esperienza* for a while and see if it fits.

Next blog: what's in a name?

## Essay 8

## On Canto 27

- 1 Sage Dante's passing nearly *sept siècles* past  
 2 I read an article by Barbara Newman.  
 3 The clock of *Purgatorio* ticks its last
- 4 To show us what transforms can change the human,  
 5 Comparing antique stimuli-response  
 6 Gold yolk's emergence into clear albumen
- 7 To fabric that our human beauty wants  
 8 And thereby may make image for itself.  
 9 Once seen and spoken, such an image haunts
- 10 All memory and time, as White Guelph  
 11 Did the Black, the Ghibelline  
 12 Of both a coral ship-destroying shelf.
- 13 In twenty-seven, three times nine, is seen  
 14 By Dante fire most fatal to behold  
 15 Since public pyre should grace his Florentine
- 16 Return, a curse that kept his footing cold  
 17 On roads of poverty and gifted roof.  
 18 Yet past that wall of fire his shepherd told --
- 19 Virgilio that is, to Dante's hoof  
 20 Aeneid author holding verse's hook --  
 21 His Beatrice's eyes remained aloof.
- 22 The laureled *Poeta* even shares a look  
 23 A "seem to see," *parea* and the like,  
 24 To burn all hesitance from Dante's book!
- 25 Thus spurred he walks on through, because to hike  
 26 Reversing couldn't be and went nowhere  
 27 To nothingness in fact, his soul to strike

28 From both his body and our world so fair  
29 Far worse than fire could, murmured what the hell,  
30 Burned hot, stepped forth, to hear the new song blare.

31 Endorphins sweet and dopamine that dell --  
32 Well really a narrow canyon, rocky stairs,  
33 Steep walls that hid the sky almost -- a spell

34 Of hard-earned rest infused, dispelling cares  
35 Like last and ashy sparks of fading flame.  
36 He calls himself a goat and slumber shares

37 With few but brighter stars above like fame.  
38 What happened there is that his brain was burned,  
39 "His" meaning Dante in the poem's frame,

40 To rid it of vestigial data learned  
41 Like doubts and fears, defeats that weighed him down,  
42 All pettiness, misapprehension, turned

43 To crumbling papery leaves or scaly brown  
44 Skin cells that lost their use and atomized  
45 As in the old and Jovian eagle's crown

46 Of burning eyes and sight restored comprised.  
47 He slept in other words right tired so dream  
48 Is what we all can sense he realized.

49 Some dreams are weird, plain nonsense, not a gleam  
50 Of relevance to them. Yet half awake  
51 They sometimes mix an image fresh and seem

52 With parallel a question's thirst to slake.  
53 How else would Dante read his burning up  
54 Of old debris than as a way to stake

55 His own imago of himself a cup  
56 Of wine from grapes he sought and grew to drain?  
57 The taken breath must outward ever sup

58 On emptiness within as sweet refrain.  
59 How though? Like dancing, duplicate repeat

60     Would be as a *ricordo* but inane

61     Because the spot is new and dancer fleet  
62     And each new turning is its very own;  
63     A slightly different glance each reel must meet

64     And every spring new flower from what was sown.  
65     The brain must mix. It knows no other way.  
66     And so to see the eyes his thoughts were flown

67     To match a something third, a story say,  
68     That would the not yet real event allow  
69     A form that would not in an instant stray.

70     This third was chosen loosely, much as how  
71     We pick a word somewhat by chance when one  
72     We thought of first does not quite speed the plow.

73     A ripple on a stream, a glimpse of sun  
74     Through leaves on water or avian on the wing  
75     Percussing lightly in a pattern begun

76     Elsewhere just enough is just the thing  
77     To balance in a *pertratatto* knot  
78     The dancers' feet to what the voices sing.

79     Alike, yet not alike, the mind will spot  
80     A match, yet not a match, with subtle touch.  
81     The fire with which he had to burn yet hot

82     With charcoal black and soot his mind as such  
83     Still smoky, yet in hope of seeing seen  
84     The image of two *vitae* would do much

85     To move him past scorched waste to verdant green.  
86     Yet how to move from spent exhausted blank  
87     To what he never was is to careen

88     From one shore to another without rank  
89     Or ship intact, but then a way he saw:  
90     To gather flowers on a riverbank.

91 *Convivio* makes simple, clear, the law  
 92 That languages do what they want. They change  
 93 And dance according to the times in raw

94 Profusion. Improvised and sleek they range.  
 95 If speakers fish, at sea they find their speech.  
 96 Each passing moment words will rearrange.

97 What better form than poetry's spring could reach  
 98 This fact of flowing improvisation?  
 99 Musicians kept the time, that book did teach.

100 A swaying river grass in currents' run  
 101 Is how the Poet's changing mountain jaunt  
 102 At Book Two's base auspiciously begun

103 Is shaped to us, and so as not to daunt  
 104 Our frail and battered crisis-riven heart  
 105 The river-grass grows instant back, as wont

106 For everything from which life cannot part.  
 107 This holds as much for images as words,  
 108 For themes and narratives and place as art.

109 So Lia's way of living undergirds  
 110 The brighter, starker truth our fear now past  
 111 We long to see as air uplifts all birds.

112 An information experiment can last  
 113 As long as can be imagined. A time crystal,  
 114 Announced last Thursday, arguably could cast

115 A shadow of a theme, to distill  
 116 Echoes found in a computer's quanta.  
 117 The simple case of folk songs that persist will

118 Show the same. A thing can be like A,  
 119 And like not-A, contra Aristotle,  
 120 As every science knows it should display.

121 Life flows like rivers and forests, and to bottle  
 122 It up for observation and control

- 123 Is simply vain, a duckling's baby waddle,
- 124 Not flight from inferno, fiery death of the whole,  
125 The all, from which no living thing survives.  
126 Something more sturdy cares, call it a soul.
- 127 To crown us each with one Vergil contrives  
128 His final lines of play benign to do  
129 Then logic and reason fade. Beatrice drives
- 130 The vision thence with certainties but few.  
131 This error-checking self-awareness gained  
132 Constructive peaceful art and science grew.
- 133 Or did they? Maybe we're still caught, restrained  
134 By something we get really, really wrong  
135 With nature and cities' ruin by deluge pained.
- 136 We see in twenty-seven simple song  
137 Consistent, sung and heard, the only bridge  
138 From *Purgatorio* sufficiently strong
- 139 To *Paradiso*, of sciences' presence the image,  
140 Experience of the spheres by nature's art  
141 Informed, coeval sight's renewing vintage.
- 142 "The purification is real," for Newman's part;  
143 "The earthly paradise within reach" we start.

## Notes:

<https://en.wikipedia.org/wiki/Convivio>

<https://www.lrb.co.uk/the-paper/v43/n14/barbara-newman/seven-centuries-too-late>

<https://www.quantamagazine.org/first-time-crystal-built-using-googles-quantum-computer-20210730/>

[https://www.academia.edu/1050327/\\_Par\\_che\\_sia\\_mio\\_destino\\_The\\_Prophetic\\_Dream\\_in\\_Leonardo\\_and\\_in\\_Dante](https://www.academia.edu/1050327/_Par_che_sia_mio_destino_The_Prophetic_Dream_in_Leonardo_and_in_Dante)

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From workplace wellness program website:

[I can't quote it directly, too much red tape, but it said that mindfulness is good for two things: reducing stress (bad) and increasing experience (good). Experience – get it? You can't have it if you're all stress, a knot not a net. Look at how relaxed Leonardo's portrait of *Esperienza* is, like the Buddha. You get more experience by trying less. There's a relinquishment of tight control that goes along with the attunement to light control, and this is manifested in the marvelous touch and gesture of *Esperienza's* right hand.]

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70 Trasumanar significar *per verba*

71 non si poria; però l'esempio basti

72 a cui esperienza grazia serba.

My translation of this from *Paradiso* 1 is that of an amateur or guesser and needs research:

70 Transhumanization's signification *in words* [italics Dante's]

71 not is possible; however example suffices

72 to whom experience grace provides.

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Kemp notes in *Mona Lisa* that Leonardo knew of Islamic geometric patterns in Venezia. Could he have known of As-Sirat, the bridge to paradise, the Brig of Dread, Bifrost, Chinvat? These in turn would resonate with Leonardo's 1502 design proposal for a bridge to cross the Bosphorus. He considered such a work to be "a bridge of east and west" in senses beyond the horse and cart. Just one year before he started to paint *Esperienza*. And is not mindfulness the shared practice of all art, science, philosophy, and culture everywhere on earth and in history?

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Because, as Dante often wrote, I've spent so many rhymes already I must be more concise this chapter. Very well, it is *necessita*, as Beckett mentions in his comparison of Dante both *Commedia* and *Convivio* to *Finnegan's Wake*, by way of this summary of Vico:

"The individual and the universal cannot be considered as distinct from each other. History, then, is not the result of Fate or Chance – in both cases the individual would be separated from their product – but the result of a Necessity that is not Fate, of a Liberty which is not Chance [compare Dante's 'yoke of liberty']."

It was Beckett's first time in print, 1929, titled "Dante... Bruno. Vico... Joyce." Note that this is a chiasmus: A, B, B', A', or, "Poet, Historian of Science, a different Historian of Science, a different Poet."

The first sentence of Beckett's essay is: "The danger is in the neatness of identifications."

The last two are: "And the partially purgatorial agent? The partially purged."

I highly recommend this essay, despite Beckett's revoltingly casual use at the start of the essay of a noxious racial slur, for anyone wishing to know how Dante relates with extreme directness to modern literature and art. I cannot say for sure, not having read enough, whether Beckett was citing Tolstoy obliquely or not, or whether Tolstoy liked or disliked Vico, but the chord is there unmistakably between Tolstoy, Dante, Joyce, and Beckett.

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Kemp notes how Niccolo da Correggio, a Milanese courtier well-disposed toward Leonardo, warned him nonetheless, in verse, using the Lady of Truth and Beauty as Icarian allegory (of which Holub aptly wrote, from behind the Iron Curtain, "the sky is full of them"):

“If Zeuxis, Lysippus, Pyrgoteles or Apelles  
 Had to paint this lady on ‘paper’ [in carte],  
 Having to gaze at each of her features  
 And at the grace with which they are then infused,

Like when one looks at the sun or counts the stars,  
 His eyes and his art would fail him,  
 Because nature does not grant to the eye  
 The powers in what nature herself excels.

So my dear LEONARDO, if you want  
 To be true to your name, and conquer [*vince*] and surpass everyone,  
 Cover her face and begin with her hair,

Because if you happen to see all her beauties at once  
 You will be the portrait, not her, since  
 They are not for the mortal eye, do trust me.”

This was probably written (an actual scholar could easily verify) by Correggio in the late 1490’s before Leonardo left the Milanese court where he had “won” the debate on allegory in painting by convincing the court that painting could do allegory as well as poetry. The rhyme scheme in the original is likely ABBA, ABBA, CDE, CDE, or something similar. Which is to say, that if a single Dedalus, poet or painter (Correggio is mostly even-handed), tries to capture everything, all truth and all beauty, the result will be just a big ego trip not free of danger because well frankly these things take time. How could they not, if time takes time?

Therefore I would argue Leonardo was well aware of these factors when he started work on *Esperienza* back in Firenze in 1503 or so. He used what Shearman calls “Transitive Painting,” making the viewer an uncomfortably equal partner on all levels. He kept the wax cool enough to stay aloft by bringing in the future, and you, and me, which is to say, time present. How? With a bridge, a yoke, from the past to today and from the present to tomorrow.

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A question: Kemp notes that Leonardo knew Islamic knot patterns from works he saw in Venezia. Did he know the story of the Bifrost, Chivat, or As-Sirat, the latter perhaps as discussed by Ibn Arabi the Wise? A scholar would know, or might, or might not. In any case, for speculation's sake, let's consider Keizer's discussion of Dante's anecdote in the *Convivio* of how the word "author" (*autore*) is derived from the Latin *auieo* verb meaning "to tie words together," as by a line drawn through the vowels A-E-I-O-U, which bind consonants together, in the order or first, last, middle, second, and second to last. Could this calligraphic metaphor relate to Leonardo's fragmentary "signature" symbols (if they are even that) on the first, last, or both pages of each Paris MS? Could Leonardo have been suggesting that we hear or see the message "I am an author"? Certainly a stretch. Yet Keizer's assertion that visual and verbal imagination use slightly different paces of time can be applied, if true of Leonardo as of anyone, to either short-term or long-term time. How can one pace human change? Speed is a factor on the Chinvat bridge myth, as are the dimensions of the bridge (narrow or wide). If a traveler gets either wrong they don't make it across. And perhaps not coincidentally, one may not depict people in some forms of Islamic visual art.

Does a line from the lake on the left, along the S-shaped dry riverbed, behind the sitter to the river on the right, possibly twist in a loop to then cross over the bridge from right to left? This would Escher-like place the sitter on the "other side" of the river, just like Beatrice was when Dante first saw her face.

The poem, in the final lines of *Purgatorio* 31, asks us:

"O splendor of eternal living light,  
 who's ever grown so pale beneath Parnassus'  
 shade or has drunk so deeply from its fountain,  
  
 that he'd not seem to have his mind confounded,  
 trying to render you as you appeared  
 where heaven's harmony was your pale likeness—  
  
 your face, seen through the air, unveiled completely?"

Here again, as Marmor advises us to notice, Dante uses the words *paresse*, and *paresti*.

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In *Purgatorio* 31 Dante sees Beatrice's eyes, and then, after she admonishes him sufficiently for his departure from the true path as in his dream of *Purgatorio* 19, she unveils her full face.

Before Dante's dream of the Circean Siren in *Purgatorio* 19, the central of the three dreams, he mentions *Maggiore Fortuna* which in the phraseology of fortune-tellers from his time means "great good fortune" or perhaps more precisely "the primary fortune;" this makes the rending of Circe's Sirenian garment, which was so visually enticing, by Vergil at an unknown lady's request (clearly Beatrice, since at the time that Vergil helped Dante she was a hidden agent) to show the inner decay caused by vanity, i.e. just seeing what we want to see and hearing what we want to hear at the expense of doing anything ourselves, nothing less than Dante's image of his own "most important fortune," the event that jolted him out of his primary problem which was pride, vanity, and compulsive or habitually incontinent love of superficially passing success like money, flattery, station, self-satisfaction, smugness, jealousy, and similar dead ends common to aristocratic milieus like 1321 courts and their 2021 equivalents.

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McLuhan oh so many years ago, in such a different world, wrote in *War and Peace in the Global Village* about the ten "thunder" words from *Finnegan's Wake*. Was his title a nod to Tolstoy? I don't know. The ten spheres of Aristotle are said to be the ten sciences: the Trivium of grammar, the Quadrivium, etc., and Joyce made a joke about being not trivial, but "Quadrivial" at some point. McLuhan interpreted them as "technology" words, marking the great thunderous events of human society as increments of techne, one of which interestingly is clothing.

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After writing my own canto about *Purgatorio* 27, I was both encouraged and dismayed to see that Beatrice accuses Dante of being a baby bird:

“Nature or art had never showed you any  
beauty that matched the lovely limbs in which  
I was enclosed—limbs scattered now in dust;

and if the highest beauty failed you through  
my death, what mortal thing could then induce  
you to desire it? For when the first

arrow of things deceptive struck you, then  
you surely should have lifted up your wings  
to follow me, no longer such a thing.

No green young girl or other novelty—  
such brief delight—should have weighed down your wings,  
awaiting further shafts. The fledgling bird

must meet two or three blows before he learns,  
but any full-fledged bird is proof against  
the net that has been spread or arrow, aimed.”

Also quite interesting are the two mentions of river-grass in *Purgatorio* 28, which I read a long time before writing “On Canto 27,” and then again but differently, after. Yet more confusingly I also, after, saw at the flat sand-bank where I always walk along the Mississippi, having seen a very fine dance performance about the Ganges and Varanasi just before, those same triangular river-grasses actually growing right there where I had noticed the S- and C-shaped cottonwood twigs described all the way back in Book One. [Apologia: my observation there was incorrect. The grass I saw was sedge, with a triangular stem, not rushes, as in *Purgatorio*.]

Odd too was finding out about McLuhan’s *Finnegan’s Wake* book title after having started my Tolstoy blog, and what’s more, found a copy of the Tolstoy in an outhouse at a rustic vacation spot of all places! Enough cataloguing coincidences though. While they do affirm to some extent one is following

a trail of clues, they also cause headaches and the trail might not be a good one to follow to find the destination you have in mind.

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**Actual Title of the Mona Lisa:  
Experience (*Esperienza*)**

The Italian word "*esperienza*" means both "experience" and "experiment."  
See Leonardo quotes about Experience at:  
[en.wikiquote.org/wiki/Leonardo\\_da\\_Vinci](http://en.wikiquote.org/wiki/Leonardo_da_Vinci)  
**#MonaLisaEsperienza**

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My motives are not quite so deteriorated as to wish for any kind of politically compulsory affection for this book and its hypotheses. That would bring only more headaches, I'm sure. Balance is the goal in politics anyway, in my opinion, or balances and checks as they say, and balance is always a work in progress. I don't believe that either Marxism or Randism will fix the world's problems, so warring between them is like two flies fighting over a turd. On the other hand, if the two camps spend their time squabbling with each other perhaps they will leave the rest of us to deal with practical problems and tasks in a balanced way. Arguably every political economy is part politics and part economics; and every politics is part hierarchy and part equality; and every economy is part private and part public.

Nor would I want, I hope to say, to have any economic compulsory power to induce people to consider the idea that Leonardo's portrait is a Dantean allegory of *Esperienza*. Leonardo didn't want either political or economic compulsion either – too much bulk to get off the ground so to speak.

The problems the planet will face between now and Leonardo's sixth centennial (and Dante's eighth) are going to be terrible and shocking. Once-in-a-millennium disasters will now occur once a decade, or even once a year. I certainly don't want to make these more difficult to deal with, nor do I

feel any special privilege to deserve to rock the boat. Why rock the boat when it's already taking on water? We have to voice our concerns and suggestions, yes, but with balance.

This puts me in a pretty pickle. I think I've decoded the most important secret message in all art and writing, Leonardo's portrait of *Experience*. I honestly think his message is on a par with *Finnegans Wake* (no apostrophe), Zen, mindfulness, and other works of history in terms of its potential applications. In its way, it's a more important apparatus (to use Cloninger's apt term for experiment) than any digital or computer-based technology could be. Moreover, his portrait is designed with a built-in thermostat, cybernetic switch mechanism, or timed surprise: its function changes in a very specifically engineered way when its environment changes along a precisely predicted parameter. This is Norbert Wiener's basic definition of cybernetic, a thermostat that flips on when a temperature is reached and off when a different one is. I know this because my car overheated on Monday and I have to buy a new thermostat, which is like a metal donut with a spinning circle in it more or less, that lets water flow when the engine is hot but not when it's cold.

Leonardo also built robots – yes, robots. One was a lion or other scary animal like a dragon, which moved autonomously and scarily toward a high aristocrat, ominously of course, under what must have been wind-up spring power (a primitive battery to store energy). Then, fabulously, a trap door in a scary animal's chest pops open – like a thermostat – and out pops a bouquet of flowers for the aristocrat. The court erupts in laughter, stress hormones flee, and all is celebrant.

Let's also not pretend that Leonardo didn't know what a Trojan horse is because he didn't have a computer. Of course he had a computer, his brain! And it was connected robustly to many other robust connected computers, and to some very robust data sets like pictures, words, libraries, architecture, nature, and music, and the like.

Let's also not pretend he couldn't rotate a Trojan horse in cultural space into being an instrument of the opposite of destruction. That's what immune cells do, isn't it? And they don't even have brains. Imagine a Trojan horse that infiltrates a city with smiles and breaks the trance of war, disrupting its petty logic and malevolent banality. It's child's play to imagine it, so we would be remiss to argue that Leonardo couldn't have done so. What art does not perform such experiment? What poem? What song? What story told to a child by a kind teacher? None do.

My tragic flaw (or comic, I hope) is to think by showing my hypothesis to be true it will have the effect I wish it to have. This is incorrect with regard to environmental necessity, i.e. Nature, which Leonardo reminded me often not to forget or ignore. Suppose, algebraically, my hypothesis is true and the portrait we speak of is *Esperienza*. What would induce people to care, or even notice?

My problem then becomes one sadly of marketing. Is there any demand, anywhere, for any new information about Leonardo and his famous portrait? There are industries that produce the old information at a tidy revenue and their interest is of course at an inverse proportion. They like the old information! It's what they do for a living, and they want to keep on making a living. Nothing untoward about that. The new information will have to propagate along different paths, in different spaces. This is as it should be, or, that is to say, necessary.

This painful admission, that I am tiny and weak, is the same painful admission Dante had to make in order to burn away the pride and fear which kept him in bondage to the Circean siren. I have to burn away my false belief that I can control how my hypothesis of *Esperienza* is received and what impact it has on society. All I can do is articulate it and the rest is up to history or whatever. This will be a big load off my mind, and will allow me to focus on real *vita, activa* and *contemplativa*. I can Lethe-like forget about having to determine all consequences of the name change, and make brain room for the good things.

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In the interest of the aforementioned sifting and sorting, a re-prioritization of sorts, I wanted to mention this recent phrasing which helped me: *“Leonardo sought to create a highly resilient Early Modern work of sustainable engineering across all disciplines, arts, and sciences.”* I wrote this, so I don’t know why I’m putting it in quotes, and italics, but maybe quoting yourself is what writing is.

Therefore, the *Mona Lisa (Esperienza)* is a cosmological map of this engineering, beyond not only the earth-centric model but also beyond the sun-centric to what you might call the everything-centric. Here is the relevant quote in solar system terms: “The earth is not in the centre of the Sun's orbit nor at the centre of the universe, but in the centre of its companion elements, and united with them.” This is on Wikiquote for Leonardo da Vinci, where I get most of my quotes but some are from books.

The point is, everything is “in the centre of its companion elements” when you think about it, “and united with them.” This is just a wonderfully brilliant and poetic way to capture a lot of physical and astronomical truth. Even the sun is not at the center of the universe.

Leonardo knew the concentric circle model that Dante used, with earth at the center, had to be evolved, and he knew some people said the sun was at the center. These latter sun-worshippers just changed the names on the circles so the sun was in the middle, and earth on circle three, but it was still circles. Leonardo said that everything is swirled up and connected with everything else.

How do you draw such a model? Well, it would need to be multifaceted and in a sense “in motion.” How can a drawing be “in motion”? Well, it can show different states and perspectives the way that Fortune’s Wheel shows four people on it: one with nice clothes and a crown (at the top of the turning wheel), one with a crown falling off, one with no crown and shabby clothes (at the bottom), and one with nice clothes but no crown (at the 9 o’clock position). You can also show transition phases in the image. There are lots of ways to visually express movement in a still image.

How does the *Mona Lisa* do this? First off, it places you (the viewer) at the “center” of the image. The map of *Esperienza* has you at the center – the viewer, the *perspectiva*. (This is a great intuition of relativity theory by the way.) Then the image shows many torsions and rotations, of many materials and phenomena, from many perspectives. It’s not Cubist, but it has a lot of the same features. The torsion of the sitter toward you is a major creator of coiled tension, like a spring, that stores up kinetic energy and fills the experience of viewing the image with a sense of motion. You can feel this in your body, the same way we feel body language, using proprioception (or as you might say, intersubjective proprioception). The image is full of braided vortices as in the neckline embroidery, hair, veil, and garment. As we know from Leonardo’s voluminous drawing and writing of water we know it is made up of smooth laminar flows that morph and shift into turbulent vortices: therefore the winding rivers are part of this framework of vortices. We also see vortices, in addition to the side view as in the two neckline embroidery braids, in cross-section which is essential to our understanding. Leonardo drew cross-sections of everything he observed, like anatomy and trees, as a matter of course. In a cross-section of a flowing vortex in motion we see forms like that where the line of the bridge and shawl intersect the line of the veil and shoulder. The bridge lends an air of this by crossing the river, and the right hand creates a columnar three-dimensional effect with the torsional shapes in the fabric of the left sleeve.

In the image, we also see the horizon of the earth with curvature. This is all you need to know that the forms Leonardo presents are designed precisely to scale all the way up, above the tops of mountains into the clouds and beyond. The face is also, in a sense, in cross-section, colliding with ours like a mirror. The flow of information into our eyes and from our eyes connects with the same events in *Esperienza’s* eyes, just like Rachel and Beatrice contemplative see their own eyes’ reflection in the mirror and Leonardo saw ours. Thus our eyes combine with the eyes of the painting just as the optic chiasm

crosses the information from each eyeball. This matches Tolstoy and Einstein, and Newton, in that the center of the universe resides in a sense in the eye.

Leonardo's painting of *Esperienza* is much more complex than the heliocentric armillary sphere which some like to say "fixed everything." It really wasn't too much more than the flip side of the geocentric coin. Leonardo in his universal painting painted the universe.

Just as the late *Purgatorio* cantos' pageant shows human history and institutions getting stuck in dysfunctional modes, Leonardo knew and foresaw that art and science would end up becoming drastically unsustainable for the planet. He says this clearly in "On the Cruelty of Man." Just as Dante wanted to show that the arts and sciences were essential to progress and not contradictory to religion, hence permissible and decent, Leonardo needed to show that art and science could not bring progress unless guided and taught by *Esperienza*. Experiment is needed for science truth, and Experience is needed for art beauty. He foresaw the nihilistic destruction that art and science in the service of oblivious raw power of the Machiavellian sort would inevitably lead to – the "monster." He also knew that on any given day the cruel and ignorant outnumber and overpower the decent and rational people, so decency from each time had to work hand in hand with all other times. Hence Dante said that a sustainable planet requires the art and science of poetry, and Leonardo added the art and science of painting. But the real appearance of what is required cannot be bottled, or as Sterling says, "satisfaction cannot be stored." We have to choose to do it, and we have to choose it every day fresh like Zen. So the viewer, the reader, is the core, you and I are the core. Each person is, in a sense, the center of gravity and of sight; moreover, we are each this anew in spacetime so it cannot ever be recorded, stored, imaged. It grows fresh like the tree Dante compares himself to at the very end of *Purgatorio*, and the tree Leonardo carried in his boat to the eagle allegory.

Maybe it's like a waltz: Dante-Leonardo-you. Or, A-B-C. Dante adds a funny mystery to the end of *Purgatorio*, about how institutions can transcend the corrupting effect of money on imagination. He says someone will arrive with the number 515. What could that possibly mean? No one knows or has proposed anything to my knowledge (my apologies to anyone who has), but to me it could make total sense that the two 5's are the two halves of the ten arts and sciences represented by the ten celestial spheres, and the 1 is you and me. This fits the A-B-B'-A' in spirit if not letter. Come to think of it, Calvino uses a lot of names like "Qwfwq" in *Cosmicomics*, which I'm also reading as a source for this chapter and especially the next ones. Maybe the "1" is *Esperienza*, the eye itself, whose existence Machiavelli denies just to make things easier for himself and his clientele. Yet they were desperate cruel predators eating their own livers, and they sent Dante into the wilderness – the George Washington and Shakespeare of Italy all in one—so we most certainly do not need to worship their latter-day grandchildren.

I don't want to be Pollyanna about politics, but dog-eat-dog should be second fiddle. Do unto others should be first. That's just the math of sustainability, beauty, and the brain, whether this planet is shot to hell and a lost cause or not. I do hope and believe it's not unsalvageable but even if it's salvageable we absolutely could still fail to salvage it. We have to choose and do the job, the marvelous curse of free choice! If it's not salvageable – and such choices may already be locked in stone – we may still grant ourselves the salve and balm of a song of sorrow for what might have been and send it in a capsule to far-off tin cans perhaps. One could argue that to be lazy at this point though, culpably so if we think of the Sloth "P" that Dante had to have erased from his forehead on his hike. They were the seven bad habits most detrimental to writing poetry, I suppose!

Also like Dante I've used up most of my allotted lines for this chapter, and although I can add items to appendices I wanted to at least note these:

- Collingwood and *Q&A* were an early source for me in 1991, Vico influenced him.
- Comparison of Indian classical dance about the Ganges

[for this remaining portion check my notebook]

- Compare choreography of Matelda being on Dante's left, across Lethe, to *Woman Standing*
- Compare choreography of Beatrice turning to her left, standing next to chariot, to ML(E)
- Lethe/Ganges as fear extinction
- My fears of pride, incontinence, fraud
- Sight of *mappa di stelle d'Esperienza*
- Role of immersion and breathing, *necessario per la vita di pittura*
- Ten spheres/sciences from *Convivio* II (didn't finish *Convivio* yet)
  - Trivium
    - Moon - grammar
    - Mercury - dialectic
    - Venus - rhetoric
  - Quadrivium
    - Sun - arithmetic
    - Mars - music
    - Jupiter - geometry
    - Saturn - astrology
  - Stars - physics/metaphysics
  - Primum mobile - ethics
  - Empyrean - theology
- "Let no one who is not a mathematician" etc.
- Other

From notecard:

- *Leonardo's Books* – Vecce on *altore* and "changed what he copied"; Fanini on *Six Memos as "Lezioni americane"*; Bernardoni on Alhazen and reform; Laurenza on Avicenna; Versiero on Ovidian time, Pliny, sea monster; Cursi on hand-choice in writing (*mercantesca*) and drawing; anyone on Dante?
- (Great) Ovid – "By yielding you may obtain victory."
- Machiavelli corrupted "the chariot" in Canto XXX1

From August emails:

- Blocking in pageant
- Keizer on line as origin for Leonardo (from Latin *linum, il lino, la linea*)
- Circe as mother of Latinus
- *Convivio* on allegory and the "four senses" of literature
- Kemp on Grosseteste and imperceptibility of center
- Fargues-Fontaine curve
- Fifteen books of Ovid and Tolstoy
- "[C]hance" means "nothing actually existing, and so cannot be defined" Tolstoy wrote; it merely denotes "a certain stage in the comprehension of phenomena."
- Ovid: "Restless they soon untwist the web they spun."

- *Convivio*: "And say to them, O my beloved lastling: / 'Give heed at least how beautiful I am.'"
- Isaacson 2017 on prehistoric background: "connected to the present by a faint arched bridge."
- *Convivio*: Language is built on knots
- Leibniz "Mathesis Universalis"
- Brooks on AI

"Art should be like Nature."  
 The Garment is like Nature.  
 The Garment is then what  
 Art should be, and Art.

+++++

Leonardo created *Esperienza* as an Experiment designed to create three results: prove that mindfulness, interoception, and proprioception exist; to induce them in specific human beings for observation and learning; and to show how they can inform the way we do science and art (of which the bridge and garment are metaphors).

+++++

Is the "second half" of the Renaissance the turn to sustainability?

We must not envy Leonardo, *invidia* = "not see" (Keizer? Barolini?)

ML = a design for the cultural change to a sustainable planet. To help during *this window*.

More local than local.

+++

If *Purgatorio* ultimately means that Dante accepted himself, that "I, too, am a Poet," setting certain things aside, and thereby saw his world better, what does that mean for us? And what does it mean for the *Mona Lisa*?

+++

Three

Lethe. Wall of Fire. Eunoe.

My own life.

A mid-way year.

A turn.

Birds cycling above

Razor-quick

Gathering swallows twitter

In the skies.

Fire of loss of what was not needed

Forgetting of fear that what is, was not

Flowing remembrance of all

Diffidence has burned away

All question of Fortune accepted

Nothing is hidden.

+++

Graphic 8



Web log 9

## The Mindful Mona Lisa: What's in a Name?

By Max Herman  
Thursday, 09/02/2021



In Dante's *Convivio* he correlates the ten celestial [spheres](#) with the ten sciences or "intelligences," the seven liberal [arts](#) plus physics/metaphysics, ethics, and theology.

Could Leonardo's "universal picture" the *Mona Lisa*, informed by his own principles of art and science, contain a parallel cosmology of knowledge? He wrote, in contrast to Dante's [geocentric](#) model, that "The earth is not in the centre of the Sun's orbit nor at the centre of the universe, but in the centre of its companion elements, and united with them."

[Heliocentrism](#) would remain illegal for well over a century after Leonardo's death in 1519, so we should not expect him to have published the above in blunt terms. He documented his research quietly, subtly, even “artfully.” Interestingly, he does not say “the earth revolves around the sun” but rather locates center among all “[companion elements](#)” in a state “united with them.” In this view the center is nowhere, but also everywhere, dispersed throughout the web of all phenomena not empty, null, or grid space.

How could one depict such a cosmos devoid of center?

In the *Mona Lisa* all center is perpetually relative and in motion. The model is not of concentric circles, but something like the swirling [patterns](#) formed by a drop of ink added to clear water. The dominant linear perspective of *The Last Supper* has been abbreviated to two small sections of a balcony wall, and grid is conspicuously absent from the composition. This yields a topologically complex, universal, physical, organic, indeed perceptual form of centricity which has implications not just for the planets but all phenomena including [physics](#), chemistry, and biology.

Interwovenness and involution pervade the image. The helix or double-helix is the primary motif -- in either side view or cross-section -- illustrated by the winding rivers, curling hair, spiral garment, torsional posture of the sitter, and circular gesture of the arms. Interconnection via braiding appears in the neckline [embroidery](#) and is even psychologically present in the eye contact which “[entangles](#)” the viewer's experience, memory, [consciousness](#), and history with that of the sitter and the artist, creating something akin to a quantum [experimental](#) apparatus.

Perhaps most importantly, there is no outside view of this cosmology: we can only see or describe it from within it.

Naming is fundamental to identification, [equivalence](#), and category, establishing both relationship and location within the latticework of all names. It is also gestural: as [Beckett](#) wrote, “In its first... form, language was gesture.... to say 'sea', [we] [pointed](#) to the sea.” Name can rapidly shift from one configuration to another, just

as network or [neural](#) flows can reroute abruptly when an element's function changes.

Assigning the name *Esperienza* to the ur-portrait of modernity unites the actor and the acted-upon symbiotically, in both humanity and in our multifarious interconnections with reality through time, designating *Esperienza* as our guide -- like [Beatrice](#) -- to the cosmos.

Full understanding of humanity and technology can only be obtained through this principle, but unfortunately we still insist upon seeing instead a smiling gaze of not actual but only potential meaning. (This is of course better than nothing, and part of the work's slow-acting design). Such myopia reassures our grid-making efforts but leaves too much inner and outer reality null, void, and unable to adapt.

Naming this deficiency is half the battle and may be the role which Leonardo engineered his apparatus to elicit in the service of planetary sustainability -- that is, balance among humans, nature, and all spheres of art and science.

Next blog: the first sphere

## Essay 9

Waking up today I realize the obvious again, which is that I like very much to write in the morning. It doesn't have to be at sunrise and rarely is but I do like to write soon after I wake up because that is when my brain is percolating with its least-bad words and ideas, or so it generally seems. Dante and Leonardo both agreed with this I think, which may be partly why Leonardo quotes Dante in his notebooks saying "don't waste time laying under the covers all morning" and both of them chose the *vita activa* in the morning, and the *contemplativa* in the evening. The stream goes clear overnight but muddies up during the day almost without fail. That's by design and OK but you have to work with it.

Today I'm thinking about a couple of things. One is that I have to make a few things clearer to myself, or rather I wish to, in service of the aesthetic beauty of this book. So I'm going to give myself some free rein to that this chapter.

Another is about the first layer of right behavior, not necessarily the lowest, but it is the closest to us as we develop in our living ways and the first that we move through like a seed sprouts into the soil. This is what I would call "trying to try." Sometimes we abandon trying entirely, and just vent rage and violence toward others in a kind of frenzy, either erupting or smouldering with evil force but never abating. This is like the impression I got yesterday from someone who appeared to be a neo-fascist yelling at a person of color who was the cashier at the convenience store. The yeller gave me a very scary look, and had a scary tattoo which signified his fondness for dealing death, but he looked at the same time infinitesimally small and absent. His soul had gone far, far down and away within a thick burial covering of hate and license. He not only didn't try to follow the golden rule, but bent all his desperately pale ire, envy, and despair on denying that he even ought to try. That is the abyss, a state most resembling say the baboons depicted in a cage by Blake. It's the worst state humanity can achieve or inhabit.

The middle phase is not quite as bad. It's when you know you should try, but aren't able to yet. You're kind of digging yourself out of the grave you dug for yourself and filled in with endless bad acts of evil, treating others as means only. Your psyche keeps tabs on you, and you can't ever rid yourself of the evil you intentionally did. So, you can't even start to try until you dig out from all that. That's a slog, but in a way it's the best way to earn honor among the celestial host. It's one of the best, and certainly a respectable one.

Even better is to never desecrate the tree of human life for your own selfish gain. That takes a surprising amount of foresight, restraint, and dedication to imaginative vision. It may or may not have ever been done fully, but it is absolutely possible in principle. Which is to say, the principle of not doing it at all exists beyond possibility of doubt. Dante makes pretty clear that no one or almost no one ever has thought, and his job is to tell the story of how to stop doing it to those who need to.

Whether it is after having dug themselves out after digging themselves in or not, the first level of active life is trying to try. It's almost like the shadow of a shadow. Not only have you learned that it is necessary for you to try and to be active, but you have reached the first level of activity which is successfully trying to try. You have set your own efforts toward an action, and like a slow drip-drip-drip of glacial meltwater it is enough to start the changes. You're on the path and either moving or about to move.

Leonardo had a rather sad image of people who didn't try at all or try to try:

"An infinite number of men will sell publicly and unhindered things of the very highest price, without leave from the Master of it; while it never was theirs nor in their power; and human justice will not prevent it."

This is under the heading, in the notebooks, "Of Selling Paradise." In my mind this quotation answers a lot about Leonardo and what form his ethos of the human, nature, art, and the divine took.

Yet if people want just to dispute, and are most active in the grouchy tobacco haze of afternoon, well of course they will dispute and in so doing try to hack off and sell their own little chunk of the tree of paradise. Yet they never escape the cost because as Ibn Arabi said “there is no midday meal unpaid for.”

In other words there is a message of hope because everyone can try to try, and has in a sense one foot in the door already. So staying depressed and hiding under the covers is inadvisable.

Still further, Tolstoy, who wrote *War and Peace* in fifteen “books” or sections to make a point of comparison to Ovid’s *Metamorphoses* which also had fifteen books exactly, said it also very well. There isn’t one big cause of everything: people have choice. Like it or not, we do. It’s not much, or not always much, and never all, but it’s never not there. So it’s that little dram of eale which all the noble substance of a doubt to its own scandal. It’s the uncertainty principle. And that means there is never one big cause of all; the cause of all is just a giant complex symphony or cacophony of all the little tiny causes and choices that happen in everyone’s own life stream. Since you don’t know what you’re going to choose next week, you don’t know what’s going to happen, and no one else does either. Neither can you or anyone control with certainty what cannot be defined and is a moving target. You might hit it and you might not. No consistently advocated system of human behavior I can think of says choice is meaningless, or doesn’t exist, or shouldn’t exist, or can and should be ignored. Many will sell you the corollaries of that however because they want to sell you a hacked-off vestige of the paradisaical which is of course just a garden-variety lie. If you give them money yes they will bother lying to you, but it’s you choosing to eat the manure sandwich.

I guess I just mean that the first simple layer or permutation of choice is trying to choose, like a tiny baby bird trying to breath its little air bubble inside the egg and peck its way out to the real air. It’s not too different from waking up every day and doing whatever. It’s a small layer of new growth but it’s

undeniably new. That's the infinitesimal layer of free choice Tolstoy talked about, a rare element that infuses everything with just that necessary layer of complexity. It reminds me of Dante's "Lady of Permutations," of whom I may all my remaining life argue *Esperienza* is the image and being. At the very least I believe and choose to act on the belief that she is. Life in DNA form cannot exist without permutation, and therefore Fortuna is really in the deepest fabric of all cellular life.

You can certainly laugh at me all you want – I don't mind, and hope never to – but I feel right now like my skin and bark are kind of being rent and torn by claws, fingers and ears being broken off marrow and tendon and all, blood-sap dripping out and flowing with coagulate. Have you ever touched a tree sapling, say ten feet tall? Or even a ten-year-old tree. You can sense the comparison to your own bark, your own thin layer of armor, your own leaves and arms and breathing, your own love of the sun and water. Many will tell you "oh that's BS buy AI." To them, I hope to claim differentiation. Why? Why not. But I don't care about them right now. I'm talking to those who have felt the life of a tree in their own life or in their own feeling of their own life. Call it intersubjective proprioception, love, the essence of the Universe, whatever. In any case, I feel that way about a tree in my mind or heart right now, and I know there is another kind of tree or growing thing in time and place which is the forest of all humans. The future path of the whole of us depends on each chosen path-step of each. Even every breath is part of it. The feeling I have of this imagined tree is already fading, but it was as real in its way as the Easter Bunny.

It's never time to face something until it's time to face it.

It's the seeming-fixity or shadow of the *Mona Lisa* that shows its light, just as the face appears gibbous like the moon in near total darkness, and the light is the movement. Only when you sit as still as she is will you see the torrents all around! And not only will you see them but you will be carried by them like a wave, a leaf, a cloud. It really is a marvel I have to recommend. Perhaps in this sense, when

it really happens the trying to try is really a lot like not trying to try but doing it anyway, simple, clear, present, calm, and quiet, but as loud as dawn.

+++

The weight of the burden of politics, a part of ethics perhaps, can be crushing. As the climate collapses around us it would appear that many of our political structures are being intentionally collapsed as well. My city to go by alone is being divided into warring parties with no hope of reconciliation. This is for managerial ease. It seems that if one half hates the other, and vice versa, with little to no hope of dialogue, then you have stalemate. And maybe that is deemed the highest good right now by various people. Who knows. But they do seem to want, if they exist, two nations within the city that hate each other. It's probably already done and finished, with the abolition of the rights of one side within the borders of the other's land the lever. Maybe it's a mirage and all is perfectly well. Either way, everyone still has to make choices and Leonardo and Dante are a great double-singularity at the center of one way of looking at the wheel of our seasons. They are friends.

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*Paradiso* I is so important and basic, underlying all, that I have to insist that you read it. It explains how poetry is a necessary path to follow in order to see eternal truth and beauty; it has a necessity and therefore both a responsibility and a license.

*Paradiso* 2 is also so absolutely important – it shows the essence of science and the key role of *esperienza* in perceiving and understanding eternal truth of the universe. It shows that science, like art, is rooted in imagination yet bound by truth and is the second arm or leg of human responsibility. Lines 94-96 clearly state that *esperienza* is the source of all arts and sciences, "*suol fonte ai rivi di vostr'arti.*" Canto 2 explains light as perception, the vortices and gyres of the wheel of light within which all moves.

Then he says that the spirit of each sphere or intelligence shines forth from it as the soul shines forth from the human eye:

Because of the glad nature of its source,  
the power mingled with a sphere shines forth,  
as gladness, through the living pupil, shines.

142 Per la natura lieta onde deriva,  
143 la virtù mista per lo corpo luce  
144 come letizia per pupilla viva.

So this is what is “shining forth” to us from the *Mona Lisa’s* eyes: the spirit of science radiated by the eternal spheres of paradise. It’s a bit like perception perceiving itself and greeting then welcoming itself. It’s like the old saying “know thyself” but in a more active ongoing sense like “be aware and be aware of being aware.” This is the double-awareness at the core of all mindfulness too I think, even though Leonardo and Dante wouldn’t have used the word mindfulness but something more like *esperienza* I think. The canto shows its seriousness by doing some real astronomy too.

Canto 1 however comes before Canto 2, showing that poetry is more important even than science. Dante proclaims he has seen the greatest truth and light, but it can only be truly perceived in real time (which is also inherent to mindfulness). Description in words is always partial and after the fact, an echo or shadow, but it’s still the best we can do and therefore totally mandatory and noble. He calls on Apollo in great detail to show the divine nature of the obligation to write the best poetry he can. The moment of the first Canto is defined also by an astronomical “conjunction” where multiple spheres intersect, like a great launching moment. Beatrice is compared to an eagle, and Dante’s own consciousness is compared to a ray of light that radiates down from above then bounces or percusses back upward. All of this is interwoven and in motion, and the poetry is just trying to keep up.

In Canto 1 Dante also declares he is changing. It's like the myth of Glaucus, a fisherman who ate a sacred herb and became a demigod, Dante says. Then he states the massive "Trasumanar" truth, which declares the high power of *esperienza* to bring light. Leonardo keyed on this, I am certain in my heart of hearts or at least choose to be gosh darn it! I choose this like today's new I Ching, K'uei / Opposition. The interwovenness of all light like rivers and seas is very important, the image comparing light to water (since water can contain light) is totally vastly important and comparable to Leonardo. Dante mentions the boat of each person's destiny, which gets an even more pronounced mention to start Canto 2. Canto 1 compares the moving of the conscious spirit to a waterfall, gravitational but upwardly.

There are a lifetime of parallels to point out; the density is the goal. But you can see the focus on poetry in Canto 1 – laying down the main method. Canto 2 sets out the primary sub-method, being science. Of great importance, I think, is that Beatrice often speaks the science while Dante listens. She doesn't advise him about poetry; that is his own obligation, his own contribution, and it appears first in the *Paradiso*. Poetry by way of Virgil is what carried Dante out of the dark forest; and it is what Beatrice commands him to create in order to relate to us back down here the truths she shows him up there.

Canto 3 moves on to examples of actual people who made choices on earth and attained commensurate place in celestial eternity. There's no more deep talk of method and structure or principle. Canto 1 and 2 set out the plan, the method, and the goal, the core dynamic of Beatrice as guide and Dante as both student and witness is boldly and irrevocably declared in 1 and 2.

I mention these few remarks, during the tiny amount of words I have left in this chapter, because they are completely taken up by Leonardo as well (in the sense that he proclaimed Painting and Poetry to be the same art). Dante cites the "experience" definition of *esperienza* in the solid core of Canto 1, "*Trasumanar significar per verba*," i.e. the depiction of transhuman change in words: this means

poetry of metamorphosis, like Ovid, with a medieval cosmology of the divine eternal superseding the ancient without marring it except in the slightest fashion (which is not a marring so much as a correction or removal of a mote from its eye). Canto 2 establishes the “experiment” meaning of *esperienza* in what is the gravitational core of the Science canto, after alluding to the Islamic scientist Avicenna (albeit as in error), with equal and even superior power to Canto 1: “Da questa istanza può deliberarti / *esperienza*, se già mai la provi, / ch’esser suol fonte ai rivi di vostr’ arti;” which is to say, “Yet an experiment, were you to try it, / could free you from your cavil—and the source / of your arts’ course springs from experiment.”

As it occurs to me just this moment, the reason there are two chief intelligences or modes set forth as the twin prime movers of the *Paradiso* is to accord with Matelda and Beatrice, the *vita activa* and the *vita contemplativa*, Dante’s own mandatory action of writing plus the corrective and higher truth bestowed by Beatrice as by a muse (of which Dante declares in Canto 2 he has nine to guide his navigation). These are the two key elements of the *Commedia*, imagination and truth, the former being our human responsibility if we are to find and see the eternal latter; and they are associated with the two meanings of *esperienza*.

It is obvious that Leonardo found the same meaning of the term and wrote it over and over. Is it reasonable to argue that he did not see this also in Dante, that he would have overlooked Dante’s truly massive use of *esperienza* in both *Paradiso I* and *Paradiso II*? It’s virtually impossible to imagine that Leonardo would not have correlated in his mind the tragically frequent disrespect for and betrayal of *Esperienza* to Dante’s own betrayal of Beatrice (followed by repentance and restoration of course). Since Leonardo equated *Esperienza* to Beatrice, is not the ray shone forth from her eye the same ray in *Paradiso II*? How can it possibly not be the same, even if Leonardo had never known a single word of Dante? Of course he did know every word of Dante like the back of his hand, in meticulous and

scientific detail along with complete imaginative sympathy, and it is the sign of our own horrendous myopia that we even have to ask the question.

Yet as with all extremes, as both Leonardo and Dante would say, when they reach their apogee the reverse power asserts itself and balance falls into place again like rain.

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In this sense, the name is the waterfall, the avalanche, the collapse upward, and the turn.

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On whether Dante is metaphoric, and the love that moves the spheres of learning and intellect is the Pythagorean Lady Philosophy, love of wisdom, the unslaked thirst for true experience, we may find grist for our mill in *Paradiso V*. Just imagine what this means: "So Beatrice, alight from Heaven's Source, began this canto"! (Dante's words are not too different: "Sì cominciò Beatrice questo canto;" This absolutely verges on the surreal. He might well have written "then Beatrice wrote this poem for a while by saying to me...." This is basically Magritte, or at the very least Cervantes and Velasquez. Very little could or will ever be more modern or more new.

Secondly this cool fall morning I wanted to mention Emerson's poem and essay "Experience," which was brought to my attention via the very interesting *Juvenescence* by Robert Harrison. I've not read the latter, or the essay beyond about page one, but here is the poem. Very little could be closer to what I see and feel in vital force (or *forza di vita* perhaps) from Leonardo's portrait:

Experience

The lords of life, the lords of life,—  
I saw them pass,

In their own guise,  
 Like and unlike,  
 Portly and grim,  
 Use and Surprise,  
 Surface and Dream,  
 Succession swift, and spectral Wrong,  
 Temperament without a tongue,  
 And the inventor of the game  
 Omnipresent without name; —  
 Some to see, some to be guessed,  
 They marched from east to west:  
 Little man, least of all,  
 Among the legs of his guardians tall,  
 Walked about with puzzled look: —  
 Him by the hand dear nature took;  
 Dearest nature, strong and kind,  
 Whispered, 'Darling, never mind!  
 Tomorrow they will wear another face,  
 The founder thou! these are thy race!'

Yet further, not to dissipate what is of value but only to note its movement and immersion in the river of time, I find Emerson's tone and idiom very well suited to view with *Bartleby* its kin. This brings us back to Calvino and his wonderfully arch *American Lessons*, the *Americane Lezioni*. Also wondrous in the essay: *pero si muove*, in the Italian no less! Just traced by my eyes for the first time ever a mere thirty seconds past. What could be more mere?

This could not be of stronger valence for Leonardo's portrait: "How strongly I have felt of pictures, that when you have seen one well, you must take your leave of it; you shall never see it again." In this I must say that having seen the portrait now what I would call sufficiently "well," and seen its structure and movement, I am not tired of it at all much less do I consider it "solved." The antipodal opposite is more true – it almost never leaves my mind, and its sight is ever-turning like the seasons or nature itself. I feared that very first moment I saw the bridge that I would never see anything but a cliché of my own imposition and to my great gratitude that has not occurred nor do I ever fear in the slightest it will as long as I shall live.

The diversity of talents is also in the first ten of *Paradiso* appearing in defense against aristocracy, and in Sterling for that matter. And in Emerson. “To fill the hour” was largely said too by Leonardo – the actual doing is what he meant in his parabolic *proema* on Marius to the Roman patricians. Emerson’s “Experience” talks of the Louvre and the Uffizi. Of Hamlet and Dante. “Power and form” is like Leonardo. He mentions the admixture of all things human, similar to how the latest Quanta article talks of the “promiscuous” and “combinatorial” communication between proteins and receptors in cells. (“Combinatoria” is a key term in the *Six Memos*.)

“Nature hates calculators; her methods are saltatory and impulsive. [Humanity] lives by pulses; our organic movements are such; and the chemical and ethereal agents are undulatory and alternate....”

On Fortuna too: “The ancients, struck with this irreducibility of the elements of human life to calculation, exalted Chance into a divinity.”

On *La Vita Nuova*, or thereabouts: “I feel a new heart beating with the love of the new beauty.”

“If I have described life as a flux of moods, I must now add, that there is that in us which changes not, and which ranks all sensations and states of mind.” (This is like Leonardo’s *sensus communis*.)

“Fortune, Minerva, Muse, Holy Ghost, — these are quaint names, too narrow to cover this unbounded substance.” Perhaps this essay does know that the portrait’s name is the poem’s? Can’t wait to read the rest! “Shall we describe this cause as that which works directly?” This is Leonardo’s *forza*.

“In liberated moments, we know that a new picture of life and duty is already possible; the elements already exist in many minds around you, of a doctrine of life which shall transcend any written record we have. The new statement will comprise the skepticisms, as well as the faiths of society, and out of unbeliefs a creed shall be formed.”

“People forget that it is the eye which makes the horizon, and the rounding mind's eye which makes this or that man a type or representative of humanity with the name of hero or saint.”

“Life will be imaged, but cannot be divided nor doubled.” This is how we see the image of our own *Esperienza* in the portrait. Emerson even writes: “that which we call sin in others, is experiment for us.” Did he speak Italian? Yes. Did he know *Esperienza* means both experience and experiment? To be sure he did. Was he alluding here to their helical relation? Uncertain. Must read on. This is kind of like what the ML says to me, or rather what I am saying it says: “Thus inevitably does the universe wear our color, and every object fall successively into the subject itself.” Emerson talks about geology.

On the lack of meditation and breath awareness: “In this our talking America, we are ruined by our good nature and listening on all sides. This compliance takes away the power of being greatly useful.” Leonardo had something of the taciturn, at times, to counter the great freedom of his notes.

“Illusion, Temperament, Succession, Surface, Surprise, Reality, Subjectiveness, — these are threads on the loom of time, these are the lords of life. I dare not assume to give their order, but I name them as I find them in my way. I know better than to claim any completeness for my picture. I am a fragment, and this is a fragment of me. I can very confidently announce one or another law, which throws itself into relief and form, but I am too young yet by some ages to compile a code.”

Note the metaphor of weaving.

“Many eager persons successively make an experiment in this way, and make themselves ridiculous.” Or as I would say Leonardo would say, the right kind of experiment is that which emerges from experience. They are both necessary together. “Never mind the ridicule, never mind the defeat: up again, old heart! — it seems to say, — there is victory yet for all justice....” Victory is a pun for Vinci of course. Did Emerson read Leonardo’s notebooks in the Richter edition? He must have. So to my

fevered brain, he knew the *Mona Lisa* is *Esperienza*. My extremely fevered brain, it is veritably boiled in its kettle.

I have most foully replaced indeed supplanted Dante and the *Paradiso* with Emerson. I plead for clemency in that I see much of Leonardo in Ralph Waldo, whether he knew it or I'm writing a novel that he knew, and that is why I'm even attempting to comment on the continent of content in Alighieri. It is meet that I strive to correct this in the nine hundred words I have left.

The first sphere is the moon – reflection and the indirect. The second is Mercury – communication and swift insight. The third is Venus – fervor and ardor. The fourth I shall not yet write of. The third is the subject of Ode I in the *Convivio*, on love of understanding. This wish to understand is the upward-facing gravity of ascent for the blessed conversation of Dante with Beatrice: the only event in the *Paradiso*. Is this ascent a bridge, from low to high, as the bridges of Inferno crossed its moats? (It is said that Chinvat reached upward, not across, as would make sense.) I don't see or haven't seen a garment in the *Paradiso* or at least haven't noticed it.

Emerson's essay's conclusion writes of name. That name is not stated in the body of the text. He calls it unfinished, or as it were, "was anything ever completed"? *Paradiso* I tells of the present moment (as does this year's encyclical of Francis). It tells of a sea of light, rather akin to Emerson's sea of that which he doesn't quite know how to name but does anyway. It says imagination flows like a waterfall, as in Leonardo's garment. *Paradiso* II mentions the boat which is the vehicle of reading comprehension. Thirst and hunger for knowledge, these appear in II and in the Emerson. Canto VIII deals with diversity of talent. Canto IX calls mirrors thrones, the mirror of one's mind, this is certainly in Emerson's "Experience." Canto V tells how poets are to be "transformed by all that is."

Emerson's is a rewrite of the *Paradiso*, is it not? And *esperienza* is mentioned with prominence that could not be greater in the first two cantos. Can Emerson be saying other than that Beatrice is a

guide just as Nature is a guide? He also tells of the inhuman dearth of noble natures and to hang in there fond wretch.

Is Emerson's "Experience" written in 33 stanzas? Seems to be 29, so no dice there.

Perhaps most important to do at this juncture is to cite yet again the page, 124 of *Six Memos*, which started all this in January of 2018, out of a book club discussion of *If on a winter's night a traveler*, as if out of nothingness itself:

"I have come to the end of this apologia for the novel as a vast net. Someone might object that the more the work tends toward the multiplication of possibilities, the further it departs from that unicum which is the self of the writer, his inner sincerity and the discovery of his own truth. But I would answer: Who are we, who is each one of us, if not a combinatoria of experiences, information, books we have read, things imagined? Each life is an encyclopedia, a library, an inventory of objects, a series of styles, and everything can be constantly shuffled and reordered in every way conceivable."

Which is to say, I'm guessing, "*Se non una combinatoria di esperienze.*"

Let us return, then, to Santillana's "Leonardo: Man Without Letters" from far-off 1961:

"Wrongly do men inveigh against experience, and reproach it bitterly for deceiving them. Let them leave it in peace, and turn against their own ignorance, which lets us be carried away by vain and senseless desires to such a point that we expect of experience what it cannot give us. Wrongly do men cry out against innocent experience, too often accusing it of trickery and of false demonstrations."

"He tries twice, this thinker in 'fragments.' And it is there already, almost word for word, in a text of Democritus that he did not know. It has the latter's simplicity, his gait, his style, his cadence, his phrasing."

Giorgio di Santillana, the famous MIT historian and philosopher of science, was also friend and mentor to Italo Calvino (whose book of *Six Memos* started all this for me). Santillana was also friend, colleague, and biographer of Norbert Wiener, the inventor of cybernetics. He knew something of science and of computers, and even of "machines that make machines." His 1961 essay mentions Valery's "Introduction to the Method of Leonardo da Vinci," 1895, which I have never read but will

tonight. Santillana proclaims Leonardo's *Last Supper* to be "as carefully constructed as the *Divine Comedy*." And of its creator?

"Leonardo discovers...a universe in which everything is immanent physical clarity, where nothing is fixed or transcendent, where everything is force, life, and movement.... In which everything is beauty, a beauty which has not known itself. It is this universe that Leonardo feels is fitting for a scientific artist, an artist of the 'exact fantasy' as he calls it."

Or as Santillana quotes Leonardo: "experience continually shows us things about which so many centuries knew nothing."

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Almost did I miss the ninth canzone  
 Which should attest I bought and read *Of Bridges*.  
 The author counts the metaphors and dirges  
 Beknownst across all people through all history.  
 My frantic state had also left out Valery,  
 Whose "Intro to the Method" images  
 Exactly and with charm what adage is  
*Esperienza*, cloaked in the vague and vagary.  
 Yet so much more important than these pairs  
 Of mirrored atoms is the long-lost voice  
 Which in itinerance I know's my own --  
 Companion ever fair through distant spheres,  
 Agent of blessing answerable to choice  
 Who bids me speak and ask, a mirrored throne.

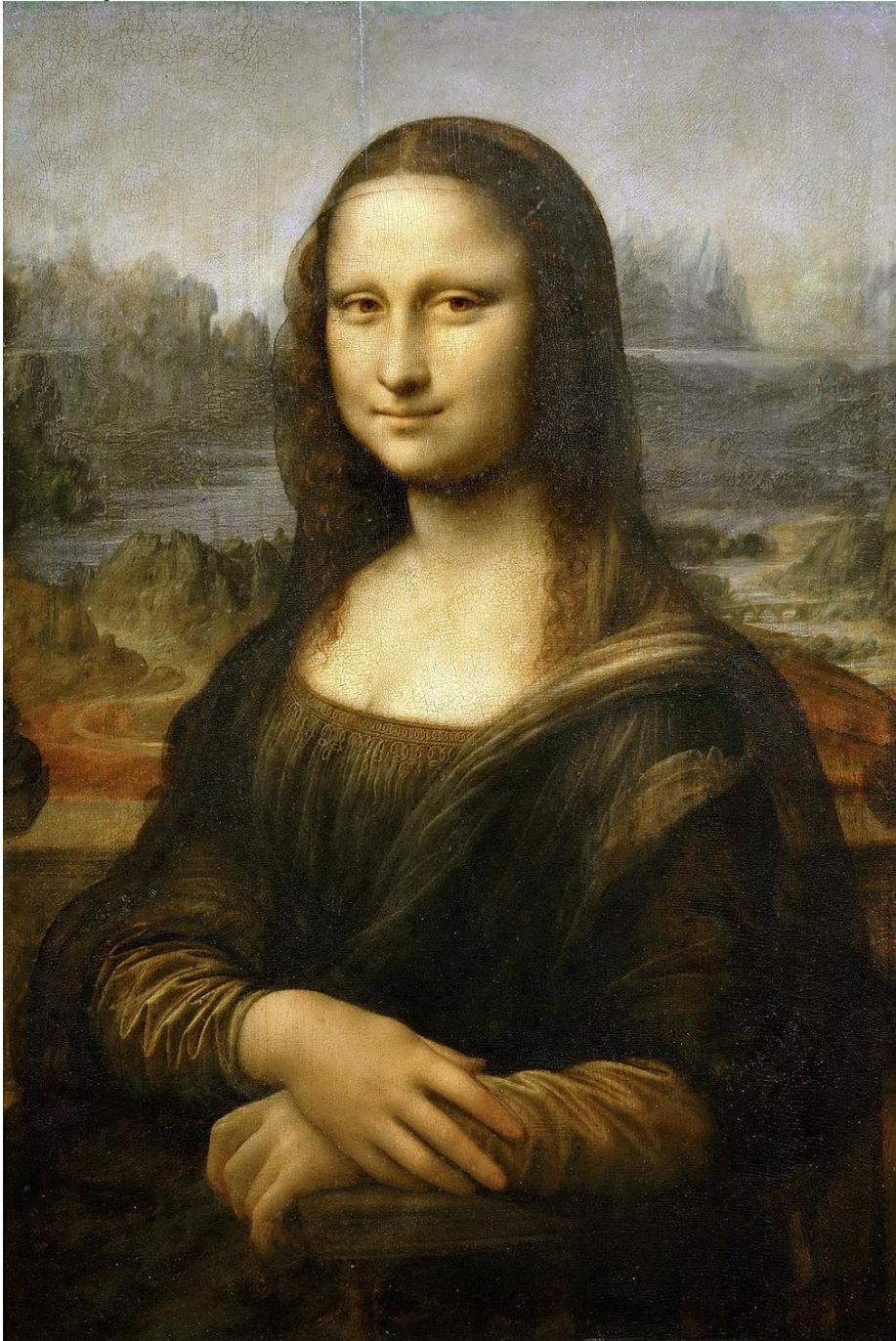
Graphic 9



Web log 10

# The Mindful Mona Lisa: Interpretation and the Bridge of Experience

By Max Herman  
Thursday, 10/07/2021



French poet [Paul Valery's](#) 1894 essay "[Introduction to the Method of Leonardo da Vinci](#)" outlines an approach to science and art closely resembling *esperienza* (experience), which Leonardo personified in written -- and arguably visual -- [allegory](#).

Valery compares [Faraday's](#) imagining of invisible forces, which cause iron filings to array themselves on ghostly "regular patterns," to Leonardo's visual and unconventionally mathematical approach to scientific insight as exemplified in his statement that "The air is full of infinite lines, straight and radiating, intercrossing and interweaving without ever coinciding one with another; and they represent for every object the true FORM of their reason (or their explanation)." The ideal observer, Poe's literary "[faculty of identification](#)," and Leonardo's belief that "mechanics are the paradise of the sciences" are all cited by Valery as further aspects of Leonardo's modern and modernizing imagination.

The essay discusses the *Mona Lisa* and other paintings in both nuance and detail. Valery uses the word "experience" but with no special emphasis, and mentions the smile and materials of the painting (fabric, stone, water, clouds), yet warns against labeling Leonardo's method with "an abstract noun" like "*the beautiful, or life, or mystery*." Nevertheless, as [Nina Witoszek](#) writes, Leonardo had a deeply "empirical and experiential orientation" as shown by his assertion that "sound rules are the issue of sound experience, the common mother of all the sciences and arts."

MIT historian of science [Giorgio de Santillana's](#) 1961 essay "Leonardo: Man Without Letters" mentions Valery and the "paradise of the sciences" in the context of Leonardo's union of science with art. The phrase clearly echoes Dante's account in the *Convivio*, derived from Aristotle, of how the ten celestial [spheres](#) each embody a branch of knowledge – rhetoric, physics, geometry, music, etc. – radiating its "intelligence" downward to earth. The *Paradiso* is in many ways a tour provided by Beatrice to Dante through all these arts and sciences, answering his questions and removing his errors, much

as *Esperienza* might do as guide, teacher, and beneficent peer. Dante even uses the analogy of passing bachelor's and master's exams as he rises from sphere to sphere.

The 2014 book *Juvenescence*, by Stanford professor and Dante scholar Robert Pogue Harrison, explores how America's focus on youthfulness displaces many beneficial traits of maturity. It discusses Emerson's famous poem and essay "[Experience](#)" (which he wrote in 1843-44 while translating Dante's *La Vita Nuova*) that [echoes](#) numerous [themes](#) of the *Paradiso*. Montaigne's last essay "[De L'Experience](#)" influenced Emerson and parallels much of Leonardo's approach to life, art, and science. Emerson in turn was known to continental moderns like Valery.

*Of Bridges: a Poetical and Philosophical Account* (2021), by UCLA professor Thomas Harrison, considers [bridges](#) from every possible perspective, across myriad eras and cultures, to discern what they do and mean in the most holistic, expansive sense possible. Among their diverse roles are transition, trial, change, and even [metaphor](#) itself as "a symbol of symbols." (The book mentions Leonardo only in passing but discusses Dante, [medieval](#) thought, and ancient [precedents](#) in depth.)

Valery's essay cautions, however, that such correspondences often remain hypothetical or simply random. When I learned recently of the *pons asinorum*, a reference to Euclid, I thought "Aha! This could be a geometric bridge reference Leonardo took truly to heart!" Unfortunately the phrase doesn't appear in print until long after Leonardo's death.

A tantalizing speculation at best, the case may illustrate a kind of "first sphere," comparable to Aristotle's grammar, of what Valery calls Leonardo's "imaginative logic" that combines observation with interpretation, improvises like drawing with an indirect or reflective character like the moon's, and flows with an indeterminacy much like the unfurling thread of [Clotho](#) in Valery's great dramatic poem of 1917 "[La Jeune Parque](#)" (The Young Fate), who tells us:

“I am awake. Pale, a thing of wonder,  
Moist with the tears I have not shed, I emerge  
From an absence lulled by itself alone, shaped  
Like a mortal woman.... And breaking a tomb serene,  
I lean on my arm, uneasy and yet supreme....”

Next blog: *pero si muove*

## Essay 10

Writing these blogs, essays, and related works about Leonardo for now approaching two years has taught me that I'm not that great at endings. They bother me and seem arbitrary, but they make sense as a manifestation of rest or perhaps recapitulation. At least in music that's roughly how they work if I'm not too mistaken. In the case of this book it has been helping me lately to remember why I started it: i.e., to provide some context and perhaps evidence (insofar as possible) to support the main idea of this book and the last that the *Mona Lisa* is *Esperienza*; the bridge and garment are metaphors of the flow of the history of art, science, and technology; and the sitter is pointing to her sleeve so that we really get the message. We know Leonardo read, talked about, and wrote about Dante, perhaps even drawing the poet and certainly trying to match his accomplishments in paint. I've tried to show that Dante wrote about *esperienza*, that his Matelda and Beatrice have parallels in images by Leonardo, that both wrote about and depicted Fortuna with visual imagery. Evidence for bridges as medieval metaphors is in Dante and elsewhere, it can be very plausibly argued. Garments have metaphorical meaning in Dante and in Leonardo's writing.

My hope is not to "prove" anything to anybody, but to set forth the hypothesis as well and plausibly as possible. What would proof look like? Perhaps Leonardo wrote someone a letter stating "my treasured portrait depicts all of my knowledge, and I call her *Esperienza*." As far as we know, there is no such letter. As a writer, and occasional painter, I don't think we need one; that is, for myself, I don't need one. Yet it does matter greatly to me whether these observations and hypotheses are expressed to you, the reader, by me as convincingly as possible. That's what we become when we happen upon a hypothesis: we are its allies, aiding and supporting it the best we can as would a public defender. We follow ethical codes to be sure, and we expect no guarantees. Yet we try our level best, sometimes for many years on end.

Why do we care, and why should we or anyone care about something unproven? I would argue it is human nature to care. When we perceive a question, we generally want to know the answer. Not to have the answer, any answer, is like an uncompleted task. A species who just ignored every question would, perhaps, stagnate. Just as other beings roam about the environment they perceive, so do we. We question just like they question. What's that over there? What do I smell? Who goes there? I wonder if I can swim. And on and on, in the continuous sequence Collingwood wrote of in *Question and Answer*, which I read auditing a course in aesthetics at Cambridge U in 1989. It's not so much about collecting data points either, but more like learning to play tennis or the violin, an active rather than acquisitive form of question and answer.

Maybe I just want to know if the ML really is just a painting about nothing. As a writer, a painting about verisimilitude, geology, water, the macro/microcosm, the optics of light, and the courtly love tradition is philosophically about very close to nothing. Every one of those things is portrayed by a hundred other artists in ten thousand other paintings and poems. Even cramming them all onto one panel, with very skillful balance, is still very little more than the sum of its parts. It's patronizing to say of Leonardo "well he is still very special relative to his time, because it was so primitive and he helped lead it to the golden pinnacle of achievement i.e. everything that came after it i.e. us." This is self-serving claptrap.

The real answer, for me, is in Leonardo's simple written statement "I am an author." He didn't say this as a naif or pedant who insists painting is writing. He says it as a writer, saying to other writers "don't think I'm just a painter or lab rat or dual major; interpret me as you would the best of authors." Writers understand metaphor. They understand voice and dialogue, honesty and deception, and layers of meaning and reference. Leonardo wrote thousands of pages of rich and complex writing so there shouldn't even be a question whether he was an author. The burden of proof should be on those who say he's not! That's where I choose to place it.

Then I ask myself, “was he modern? Was he capable of modern consciousness?” For centuries European white men like Freud and Marx have been announcing that they discovered the scientific jargon required for modern consciousness. It’s one giant river of horse manure, and the fact so many people bought it is not proof we are so modern, but the contrary: we are barely “modern” at all. TV doesn’t make your consciousness modern, nor do computers or rocket ships. Knowing a bunch more facts than people 500 years ago doesn’t, because think of how much they knew that we don’t! Contemporary technology has nothing to do with being modern. Modern means looking at things with your own eyes and speaking or making things with some autonomy. Leonardo had all that in abundance. He was as modern as you and me; and speaking for myself, he was much more modern at his best than I’ve probably ever been. By this I mean, free of superstitious habit, custom, fear, and indolence. He had a modern scientific method, as modern as anyone, and an equally modern way of making art. In fact, I’m not lying when I say it offends my sense of honor for a plane cabin full of dopey tourists to look down their noses at someone like Leonardo, who sacrificed so much to help them grow.

So here we are: Leonardo is an author, he is modern, and his literature spans all disciplines and media – physics, math, theater, sculpture, land art, clothing design, architecture. His notebooks are a modern novel of consistency, if I may coin the term for the genre into which Valery’s *Cahiers* certainly fall and even Joyce or Proust. How much more modern would Leonardo have to get for us to look him in the eye and show some respect? This matters because when you deny respect to those worthy of it you deny yourself the privilege of knowing them aright, and you dwell in poverty. Such blindness is an economic form of loss and waste which has organic consequences for the species’ and planet’s survival.

Finding so many interesting uses of Experience – Valery, Emerson, Montaigne – pretty much sums up for me what I need, what is minimally required, for this book on Dante (my second book about the *Mona Lisa (Esperienza)*). Well it meets a need, one of more than one perhaps, certainly more than one actually, in the sense of providing a plausible environment of thought around the word. Still

further, what is the *Commedia*, this book's focus, but an experience Dante had and reported on to us? It's the ancient tour of the afterworld, as seen obviously in the *Aeneid*, but also *Finnegans Wake* (no apostrophe), and gracious knows how many other places. It's an experience in our modern sense because it's like a trip or temporary state of "there and back again" as the storytellers say. This is of course the essence of every imaginative journey, as one never stays in the imagination permanently. Beatrice says, "follow me and pay attention so you can write about what I show you that other people might get over their error-prone ways the faster." It's an experience he goes through – Dante – then recounts and stores in the repository sense of the term, chalking it up as it were.

Yet imagination in the sense of a process we can influence, what Dante called "*alta fantasia*" or "high fantasy," which is not the same (Calvino points out in *Six Memos*) as daydreaming, random whatnot, sputterings of gibberish, but images we put something into on purpose with a degree of choice greater than zero, is not a process passively experienced like raw sense data. It's more a form of the body's natural perceptual frame, predictive regulation or allostasis, in which we hypothesize a form of things then check it against fact. In other words, all experience is in part experimental perforce; this is not because we are modern now and so smart (we're the opposite actually, in sorry 2021). It is because this is the way human brains have worked every day we've existed and even before we existed – Neanderthals and arguably all living organisms have it. Predictive regulation is even said by some to be the definitive trait of all biological life, the more so as organisms get more complex. Humans are certainly complex.

I asked Experience to talk to me  
 For many years, with middling success.  
 Yet asking for and honesty I confess  
 Are often in one gross disparity.  
 Without a rudder – stillness – inquiry  
 Goes all but nowhere, hears in dire duress,  
 Burns up, forgets, collates a fervid mess.  
 Per Vinci, "don't give up to melancholy."  
 "If truly you will keep your peace and hear

When I talk, and when I am duly done  
 You try, and don't sit like a mossy stone  
 Of course I'll tell you what I can make clear."  
 Without a second's hesitance begun  
 Much less prolonged my simple answer shone.

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Montaigne, from "De L'Experience":

"Experience has, moreover, taught me this, that we ruin ourselves by impatience. Evils have their life and limits, their diseases and their recovery."

"What fruit then soever we may extract from experience, that will little advantage our institution, which we draw from foreign examples, if we make so little profit of that we have of our own, which is more familiar to us, and, doubtless, sufficient to instruct us in that whereof we have need. I study myself more than any other subject; 'tis my metaphysic, my physic."

"And physic itself professes always to have experience for the test of its operations."

Emerson, from "Experience":

"But it is impossible that the creative power should exclude itself. Into every intelligence there is a door which is never closed, through which the creator passes. The intellect, seeker of absolute truth, or the heart, lover of absolute good, intervenes for our succor, and at one whisper of these high powers, we awake from ineffectual struggles with this nightmare. We hurl it into its own hell, and cannot again contract ourselves to so base a state."

"Once I took such delight in Montaigne, that I thought I should not need any other book."

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I beg the reader's pardon for those unilluminating quotations. Their purpose is to show that Montaigne's essay, from 1588 or so, has much in common with Leonardo's views on Experience, and that Montaigne was read and emulated by Emerson, and that Emerson also references Dante's views on Experience. Any one of these claims would require a book or PhD thesis to be found rigorous, and for that I lack the time and word count here. I shall have to use a different approach, and of course, ask

that you read the Montaigne and the Emerson if you want to know how they resonate with Dante and Leonardo. I can only mention some fragments and those only through the medium of my own poetic experience. If one cares to sift however I'll leave enough aphorisms to base a few PhD's on for those inclined that way.

The minimum necessary is the only way forward. Dante sets forth *Esperienza* in the first two sections of *Paradiso*. That's enough to show – to prove – he held the concept in high importance. This meets the necessary minimum of showing that Leonardo knew, read, and emulated a source in which *Esperienza* was a key player. I am not inventing this, it's just basic reportage and straightforward fact. What I'm claiming has been overlooked was hidden in plain sight, in other words, so nothing convoluted or intricate is required to see it. It's more like "look yourself in the mirror," a simple suggestion which is nonetheless often needed and often overlooked, sometimes studiously or hyper-technically, making its impacts once done rather significant with a lot of ramifications some of which you might think beforehand would require something very intricate and complex. But Leonardo knew simple was necessary for survival this long to be possible.

*Esperienza* can be looked at like a map or model of all the ten spheres, with not earth but the observer at the center. The sitter Lisa Gherardini is the observer, but we are also each the observer when we view the work and of course Leonardo was also the observer. Past-present-future, or fulcrum, or triangle may apply. Each of these three observers adds a kind of dimension. We've passed beyond discussion of what is plausible, if not probable, and now move to the algebra: if  $ML = E$ , then what? We are saying, "Let  $ML = E$ ." Then we look at what equations result.

For example: if the ML is a visual allegory of *Esperienza*, then Leonardo's written allegories of *Esperienza* correspond and relate to it. It becomes as it were a multi-media work, with both language and image, words and visuals, incorporated in one phenomenon. This is the same way that Leonardo's

allegories of Envy work: his drawings of Envy and the words he wrote about Envy correspond in a connected whole, as do his drawings and words about human anatomy. The same goes for the flight of birds. Since *Esperienza* is the “mother of all the sciences and arts,” a depiction of her will include symbols and references to all the sciences and arts just as a depiction of Envy will include poison arrows, and a chariot of aggression, and pierced ears, and other features. Therefore in the ML we see all the sciences and arts, all the spheres, but not in the earth-centric Ptolemaic model. It’s kind of like perspective, with the observer as center, but not really – Leonardo has moved past single-center composition to omniscentricity. Centers are all over the place, and not just in observers but even in the observed. So think of an armillary sphere of the ten celestial orbits that is all jumbled up in silt and fog and eye contact and flowing garments. The transition couldn’t be more absolute nor more faithful.

Experience can remember backward in time, but can also imagine forward in time, and can enact imagined forms using a variety of experimental mechanisms like sound, images, movements. The frog leaping to catch an insect doesn’t know for sure it will catch the insect, but it knows it’s going to try anyway and does try. Even after missing it might try again. This is the kind of thing Montaigne talks about. He says you can’t have a distinct rule for every action you need to take. You improvise, based on something like a cycle of Experience. You have to use your own, because you can’t access any other in the same way. Valery affirms this very bluntly: your experience is only real because it’s yours. Hamlet has the same message. You experience it and let it fade so the next can appear, very like Zen if you will, or in Shakespeare’s “like as the waves” or Valery’s “Introduction” or Leonardo and Montaigne.

Valery’s term “consciousness” is very much like what Leonardo means by Experience. A French reader could research what words Valery actually used.

We can also ask how Experience relates to the first three spheres of Aristotle: grammar, logic, and rhetoric. Perhaps these resemble drawing, composition, and audience. These are each

observational, and used to perceive reality, but also formative to shape it. Rachel and Lea, contemplative and active, or Beatrice and Matelda. Logic and composition would be Mercury, according to Dante, and rhetoric or audience would be Venus. Communication and love (the sweetness of Love being the truest guide to philosophy and all the spheres, personified by Beatrice and Dante's love for "the executrix of blessings"). So, Leonardo is recommending a kind of love for *Esperienza* but it is different from Dante's for Beatrice. One could call it more demanding, more absolute, less sweet or *dolce*. It is even a meditation on a calculus problem: what is the limit of a phenomenon's lack of sweetness while still remaining sweet?

Love operates on the principle of iterated doses of dopamine or oxytocin, pleasant or "sweet" sensations delivered by interaction with the stimuli (which can be internal actions like drawing or singing). Solving math problems is "sweet" in this sense, as is making a good move in chess. You get a little zap of dopamine. If it's too much, as with say a powerful psychoactive chemical injection like morphine, the subtle weaving is all blotted out in a deluge. Picking berries is more gradual, attenuated, and fully sweet. Lea (Matelda) takes pleasure in weaving flowers together with her hands; Rachel (Beatrice) takes pleasure in contemplation in front of a mirror. The *Mona Lisa* is doing both, because *Esperienza* does both. Consciousness does both, perhaps even sometimes at once. We can both walk and feel a concrete present awareness of walking (for one simple example). Valery talks about being "present." In this way, you get a twisted pair, which is two strands becoming one and in so doing achieving a kind of extra dimension. Two humans looking at each other is another of these basic molecules or building blocks of human perception and intelligence. Another might be us as readers seeing Dante look at Beatrice while she looks at him, or up toward heaven. Leonardo's *Saint John* and *Salvator Mundi* and *Woman in a Landscape* all looking at us are "about this" too.

The ongoing cycle of stimulus and response, in which the response becomes a stimulus in turn, is about this dialogue also.

One can view the *Mona Lisa*, and one can also view one's self viewing the *Mona Lisa*, as many commentators will tell you without doing you much if any good. If lawyers sell justice as Petrarch or Ovid said, and doctors sell health, and artists sell beauty, and philosophers sell truth, what then? Montaigne says "be your own source." What is a source not your own? No source at all – dearth, thirst, hunger, poverty, loss, waste, desolation, or as Dante felt in the dark forest, madness.

Leonardo imagined history viewing his painting one way, and he also imagined it then viewing it another way, and he imagined us imagining this so that it might occur. To accomplish this in the sense of imaginative reality or mechanical gears (like Dante mentions in heaven), not too different from quantum entanglement say, he used grammar/drawing, logic/composition, and rhetoric/audience, by way of the moon, Mercury, and Venus. In the ML these convert or translate to depicted forms, their arrangement and coordination structurally within the frame or limits of the image, and how he engineered his own role and coordinated the roles of others using the image's mechanics, or as the word "art" derives from its joints and hinges.

One can also imagine the ML as a case of Leonardo's lines as spheres, permeating not just air, which Leonardo compared to water and all flowing materials, but all of reality's phenomena including water, geology, and anatomy, if we view the painting as an illustration that "The air is full of infinite lines, straight and radiating, intercrossing and interweaving without ever coinciding one with another; and they represent for every object the true FORM of their reason (or their explanation)."

Some purists, who will most condemn my poetic method, will say that "Leonardo was a professional and didn't write between the lines; when he talks about air and optics he means only that." I would say: "Leonardo was no purist, and he applied principles in one sphere to phenomena in others in what was his true *Ostinato Rigore*. He wrote between the lines and he drew between the lines. He lived, thought, felt, and imagined always both in the lines and between the lines. That is his essence and

the essence of his method, and it is the essence of how the human brain and nervous system work. Your model is incorrect.” And then we may have at it. Or, we must have at it.

One may say “my perspective,” or “my experience,” and there is a similarity. Leonardo certainly understood linear perspective, perhaps more than any other artist of his age, but he also understood with even more advanced perception other kinds of perspective like aerial. He moved way beyond linear in his latest works. This relates to Dante’s discussion of things like “the Eternal Ray,” which is the line on which the universe enters human perception, and the “central” ray of human vision which is stronger than say peripheral vision. This talk is a geometric language meant to explain observation as such: the observer’s field and its variations, the effects of time on observation, and so forth. It’s the ray that connects the ML’s eyes to ours, and ours to the ML’s (when we look her in the eye). These sight lines form the better part of the geometry of perception in the *Paradiso*, and make the ML therefore a supreme study of all mechanics, i.e. of the “paradise of the sciences.” All mechanics are included in the ML – geological erosion, cloud formation, river flow, bodily joints, respiration, blood circulation, bridge manufacture, textile manufacture – and all shown in their commonality. The greatest mechanism of all perhaps, that of sight, is illustrated by *Esperienza’s* looking straight at us and is embodied by our own looking straight back. (Dante says something similar, yet very different too, in the *Paradiso* when he says a ray shines down from a celestial source, then reflects back directly up, which is why our minds and hearts quest upward in thirst for perception. The ladder that reaches down from the center of the celestial height in the *Paradiso* is another of many examples of this vertical transfer of intelligence. The celestial intelligence beams down to earth, we perceive it, and then we are carried upward by the beam as it reflects back to its source. Indeed, many ancient bridges to the afterlife were vertical bridges of this type.)

*Esperienza* kindly said to me,  
Now that I saw how Dante’s voyage up  
Was in my case a movement to within --

Two beings in the same space mutually  
 As Dante said -- and more a flower's cup  
 Suffused with color than a heavenward djinn,  
 A forest swept by shadows' fading light  
 Or ocean with the tide's all-moving breath  
 And I exhorted by my guide's behest:  
 "You've seen a bit, the basic map, aright.  
 It wasn't made to puzzle for a night  
 Eternal, dark, and miserable in quest  
 But rather to a bird in flight the nest  
 Present aloft at brightly vantaged height  
 Its woven home self-made that it alight.  
 Speak now and ask both freely and at rest."

"Is it true all questions are answered here?" I said.

"Yes, every question that has an answer is here when answered, and every true question has an answer, but questions meant more as statements will just be heard and either corrected or let pass."

"Are you an experiment?"

"Yes, I was designed to collect information about a certain possibility if any such information could be found."

"And that was so that humanity might know a certain thing was possible?"

"Yes, because anything thought possible will be attempted but very little thought impossible will, and whether possible or not some things just have to be attempted on principle."

"Either Emerson, Montaigne, or Valery said something about how we have very many copyists but very few authors, so are you an author made by an author and a book formed by an image?"

"Yes, Leonardo made me to function something like an author, narrator, or reader of his books so that his book could have more visual power and so that he could stay in the background. The book he wanted to author was impossible to write in words alone, so he used images equally both to prove it was possible to use images this way but also to use them in this way to prove that something even further might be possible which is to say induce to happen something which he foresaw might either happen or not happen."

“So that is the grammar, logic, and rhetoric of your drawing, composition, and audience?”

“Yes.”

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A chiasmus or X is from the ancient Greek term “chi-ify,” or “make X-like,” or “to make cross-like,” or “to criss-cross.” So when you go A-B-C-C-B-A this is called “crossing” so to speak. In music, “arch form” is when a piece plays a sequence of elements and then plays the same elements in reverse sequence. Bartok and Barber do this: A,B,C,D,E;E,D,C,B,A. Like a bridge: one side reaches from one bank, the other from the other, and they meet in the middle. Leonardo talked about this as the basic feature of structure itself: one half of the earth holds the other half up, just like one half of an arch holds the other half up. It’s a basic element of bridge structure.

Did Leonardo have such deep thoughts like this about his little homely bridge in the *Mona Lisa (Esperienza)*? To me he obviously did. To know for yourself, you have to look for yourself. Look! There are instructions at my homely website see the bridge all-one-word dot org.

So, a chiasmus is also a bridge and a bridge is a chiasmus.

What is the *pons asinorum*? An X with a road across it.

I only jabber like this because the symbolic vocabulary is so clearly there, just as “metaphor” means to carry across. I’m not just making it up, you can check it. As Leonardo said, the optic chiasm is a crossing where our sensory input crosses to the imagination, so it’s also like a bridge. In *Paradiso* XXXIII Dante uses the clear image of his vision connecting directly, finally, to the “Eternal Ray” of light. His own eye lines up via the shining meridian provided by Mary in a spherical geometric image, until it makes a kind of direct bridge:

79 E’ mi ricorda ch’io fui più ardito  
80 per questo a sostener, tanto ch’i’ giunsi  
81 l’aspetto mio col valore infinito.

Translated by Longfellow as:

And I remember that I was more bold  
On this account to bear, so that I joined  
My aspect with the Glory Infinite.

In this passage "*l'aspetto*" is sometimes translated as "vision" or "sight," kind of like "perspective." It can mean face, or look, or even road or way. Dante's sight-line having been purified enough by the whole preceding *Commedia* he can finally look straight on at pure light without his sense being overwhelmed, burned up, or zapped. The word "*giunsi*" can mean "I joined," or "I met," or "I reached," or "I arrived," etc., so the meaning is like a bridge. The image is of two line segments lining up perfectly so that they become one line basically; when this is achieved the full meaning of the light is transferred to and understood by Dante "in a flash."

This obviously fits the definition of a "bridge experience" as discussed by Harrison. The flash of insight leaves a permanent impression on Dante, which left him connected to the great Love that turns all spheres as if he was part of a great turning wheel. His descriptions are very visual, and he says flat out his words cannot do justice: "human speech is dark before the vision." Bernard prays for Dante to be able to describe what he has seen after the vision is gone. Dante asks to "lend me again a glimpse of what I saw." So it's a connection of the verbal and the visual imagination that carries the information.

Yet we can see how an artist might respond to what Dante says is impossible to do in words. Dante says "I think I saw the universal form," which is three concentric rings, the first of rainbow hue, the second also rainbow but with more human tones, and the third of fire. The middle ring is "painted with man's image," but to understand the image was like the geometry of squaring the circle and he says "I yearned to know just how our image merges into that circle, and how it there finds place, but mine were not the wings for such a flight." The understanding hits him in a "flash of light" "cleaving his mind." Then he says "here my powers rest from their high fantasy," or "*alta fantasia*," which means "lofty vision" or "noble imagination." Would a visual artist trying to equal or "meet" Dante not try to

have such wings? The *Vitruvian Man* by Leonardo is an image of a person in a circle kind of, the person being the square within the circle in a manner suggestive of a reply.

I would also argue this can guide how we see *Esperienza* “merged” into the revolving phenomena of all science and all arts, two sight-lines meeting (ours and hers), etc. Since Leonardo’s image is visual, he can really create the vision that Dante can only describe in words with an only “rudimentary” or “feeble” accuracy:

O how all speech is feeble and falls short  
Of my conceit, and this to what I saw  
Is such, 'tis not enough to call it little!

I think this is about enough. Leonardo was trying to, arguably, provide a visual experience that meets Dante’s verbal experience half way as it were. Yet his response is not an exact copy, because for Leonardo although the observer has a certain calmness or apparent fixity it is not at the center of concentric rings like Ptolemy’s concentric rings. The universe is much more swirling and complex in the ML, even though gravitational orbits and the directness of light are still there. It’s a differently shaped map but you can see it as an automorphism, that changes the shape while keeping all the elements intact. In any case, you can read *Paradiso* 31-33, the last three cantos, as I have done today and see all the painting references and geometry and so forth. I count this as well-known, present context that Leonardo could justifiably have known his literate or educated audience to possess. For example: every poet who looked at the *Mona Lisa* in Leonardo’s Florence would have known *Paradiso* 31-33. When skeptics of the bridge-garment-experience hypothesis say “where is the context to affirm that Leonardo could have had such concepts and themes in his mind?” the answer is right there in 31-33 and indeed all throughout the *Commedia*.

Yet just as Dante calls Mary in *Paradiso* 33 “the great turning-point” of the divine plan, in Italian “*termine fisso d’eterno consiglio*,” translated variously as “fixed goal decreed from all eternity” or “The

limit fixed of the eternal counsel," "*termine*" meaning as many different things as term, word, limit, point, end, etc., the *Mona Lisa* is also the possessor of the great fixed point and "ray" or meridian of the painting i.e. her gaze. Where Dante wanted to establish the scientific and artistic aspects of eternal reality, Leonardo inflected his reply toward the eternal reality of science and art. It's a "counter-change" or chiasmus with what Dante did, or the "other half" of the bridge between realms which seemed severed in the Medieval world -- science and religion, doctrine and art, poetry and painting, nature and humanity, humanity and the divine – that for the wholeness and sustainability of life on earth could and should be re-connected.

Another chiasmus might be that Dante saw a visual image of the human cosmos and made a verbal description, whereas Leonardo saw a verbal description of the human cosmos and made a visual image. The point of a chiasmus however is that the second two parts are not identical to the first, just comparable elements of the same category such as "poet, words, images, painter."

I could go on and on, to no avail, or maybe some avail, but as Dante says so greatly in *Paradiso* 32 "the time allowed for this dream vision flies. As a tailor must cut the gown from what cloth is given, just so must we move on." The constraints of the form, like painting or canto, are mentioned so matter-of-factly! He never fails to remind us this is a work of art even if its truth is total or perfect. But my constraints are similar, and I have to focus back on what matters, i.e., my feeble attempt to suggest that when we sit before the image of the *Mona Lisa* Leonardo is asking us to look at the "eternal ray" of the universe and perceive how it is looking at us too, in a paradoxical way, just as Dante described or rather not exactly like Dante described (necessarily in the third person) but similar (in first person).

Leonardo also very much wanted us to identify with the *Mona Lisa's* gaze, and realize we are directing an equivalent gaze back at her. This embodies the third sphere of Love, or Venus, or what one could call "audience." Another free-form comparison from *Paradiso* XXXI is the great rose image in heaven, made all of light, which is also like a stadium containing all the saints and blessed souls sitting

on its petals. The Love of philosophy, the love of science and art, is like the love of the universe which humans are capable of and which can animate all phenomena if we look for it well enough. The second sphere, Mercury, or logic, which I'm comparing to composition in the visual corollary, would be the shapes of the arcs and rotations in the ML or its geometry if you will. This is illustrated for example by the two rivers being mirror "S" shapes, the arc of the neckline contrasted to the arc of the veil, the arc of the bridge and shawl crossing the arc of the veil and shoulder, the arc of the right hand crossing over the arc of the left arm, etc., and in a sense the sitter's torso, shoulders, head, and eyes turning to her left to look at us as we turn our eyes, heads, necks, etc. from whatever directions they were pointing to look at her.

My apologies for the mess that is today's writing. I'll leave what few allotted words I have left for another time.

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The *Paradiso* is like a tour upward to the cosmos' heights, where Dante encounters all of the higher and highest intelligences, yet the reason Beatrice states for Dante's privilege is that he must try his best to report back to us on earth. In lines 7-9 of the book he says:

7 perché appressando sé al suo disire,  
8 nostro intelletto si profonda tanto,  
9 che dietro la memoria non può ire.

This means, roughly in my own words, "when it approaches what it desires / our intellect gets so deeply absorbed / that memory cannot follow it." So everything is somewhat of a fading coal, as Shelley said, an echo. I make this excuse for myself in this book, and also that the *Commedia* is deftly designed with thirty years of ideas and references by the author. No way could I cover it all.

I will repeat the great invocation however, which I have memorized perhaps forever:

Trasumanar significar per verba  
Non si poria, pero l'esempio basti  
A cui esperienza grazia serba.

That's from *Paradiso* 1, and this from 2, after the helpful lines "the co-created and perpetual thirst / for the realm deiform did bear us on / as swift almost as ye the heavens behold," i.e., the urge to write and understand that we get from both ourselves and reality impels writers and artists in their boats of expression almost but not quite as quickly as the readers and viewers are carried:

94 Da questa istanza può deliberarti  
 95 esperienza, se già mai la provi,  
 96 ch'esser suol fonte ai rivi di vostr' arti.

Which says more or less "of this confusion you can be freed / by experiment [*esperienza*], if you'd try it ever, which is the source to the riverbanks of your arts and sciences."

Having noted those two keys, as it were, maybe even the gold and the silver, in the little space I have left this chapter this morning I wanted to mention Wallace Stevens. Discussing yesterday his poem "The Motive for Metaphor" which is discussed in *Of Bridges*, I thought it might include elements of chiasmus. I looked it up, and Hariman (2014) says it's one of his most chiastic poems and ends with "X." Prior to finding the Hariman essay I re-read a few Stevens poems I knew: "Anecdote of the Jar" clearly uses chiasmus with the word Tennessee; I wasn't sure if "Thirteen Ways" did; "The Snow Man" does a bit referring to "the nothing" at the center of self multiple times; and later that day I realized my favorite "The Only Emperor is the Emperor of Ice Cream" totally does, even doubly, much as Joyce's town reflects back *Finnegans* (no apostrophe) rippling effects on those and that around.

But the real effect was from "Sunday Morning," which always eluded me somewhat in the past but didn't hardly at all yesterday. There's the mirrored "wide waters without sound" and "mother of beauty," and he also talks about the procession of the dead walking over water to Paradise, and then he writes about Paradise maybe mirroring back to earth (but absolutely not guaranteed like pigeons crashing to darkness as opposed to green birds immortalized in carpets). I'm recalling he wrote it in 1917 maybe, a dark year, like "La Jeune Parque"? That seems too old. Actually, I just checked, it's not

old enough: he wrote it in 1915, and far from abandoning it, revised it (apparently) in 1923 and 1925 or 1929 or thereabouts.

So, Stevens saw a bridge between this life and the afterlife, art and reality, hope and devastation, which allows travel in both directions as it were without guaranteeing many or beneficent travelers. He makes this bridge real, ice cream, by chiasmus. In this kind-of koan-like or even non-western tonality which he has there are elements of Chinese composition I would say, as in the essay I found yesterday or the day before about chiasmus in the I Ching and Chinese literature, by McCraw of Hawaii (2006). Interestingly he said the old Chinese writers did not talk much or make many rules about grammar and logic of the Trivium, but about the coherence of audience and the all in rhetoric.

Chiasmus, being both mimetic and membranous, might even be older than words, a perceptual math that follows an analog geometry like water flowing over a landscape with minimum but nonetheless profound disconnection. Insects, in this hypothesis, also use chiasmus. Cognitive science calls it “chi-thinking,” and it might even be at the core of experience. It’s kind of what Leonardo means when he wrote “it helps me greatly to think about the images I encountered or made during the day when I’m laying in bed at night.” He seems to have found the amount of help in this surprising, and I know that I have.

This point I should focus on here is that the viewer is not the same thing as the *Mona Lisa*. When we look in the mirror, what we get back is in reverse. When you make a bridge, each half-span is a kind of mirror-image of the other span. Hariman cites Nietzsche’s stare-abyss-abyss-stare chiasmus, and one could simplify this as organism-environment-environment-organism. It seems to me, in a way, that when my dog stops abruptly and looks at a rabbit, she is also looking at herself from the rabbit’s point of view. Some people overdo the mimesis argument, of course, so they need a higher dose of Leonardo in my opinion because he gets the balance right. So does Stevens with his “red and blue,” and the X of course. The only Emperor is there is no Emperor.

That's also the *Eroica*, to be sure.

I remembered to listen to *Little Harmonic Labyrinth* and *A Musical Offering* today.

Dante's first image in *Paradiso* is the reflection of the light ray of the motive source that moves all things, the set of all light as it were, as one might say the set of all phenomena or of all living things. That's an image of mirroring too. I'm doubting the fidelity of the Ciardi translation I've read all this time. A rough and very choppy first real reading and interpretation is this book. Infernal, purgatorial, paradisaal, a walk through and a reporting back, not far from the flaneur, who becomes lighter in the walking perhaps; this is experience, this is the attending to by many tries, the narrowing of the limit-ranges to approximate the ungraspable points of nothingness, which are nowhere, that are all too, its eyes looking back at us but also so very kindly letting us breathe.

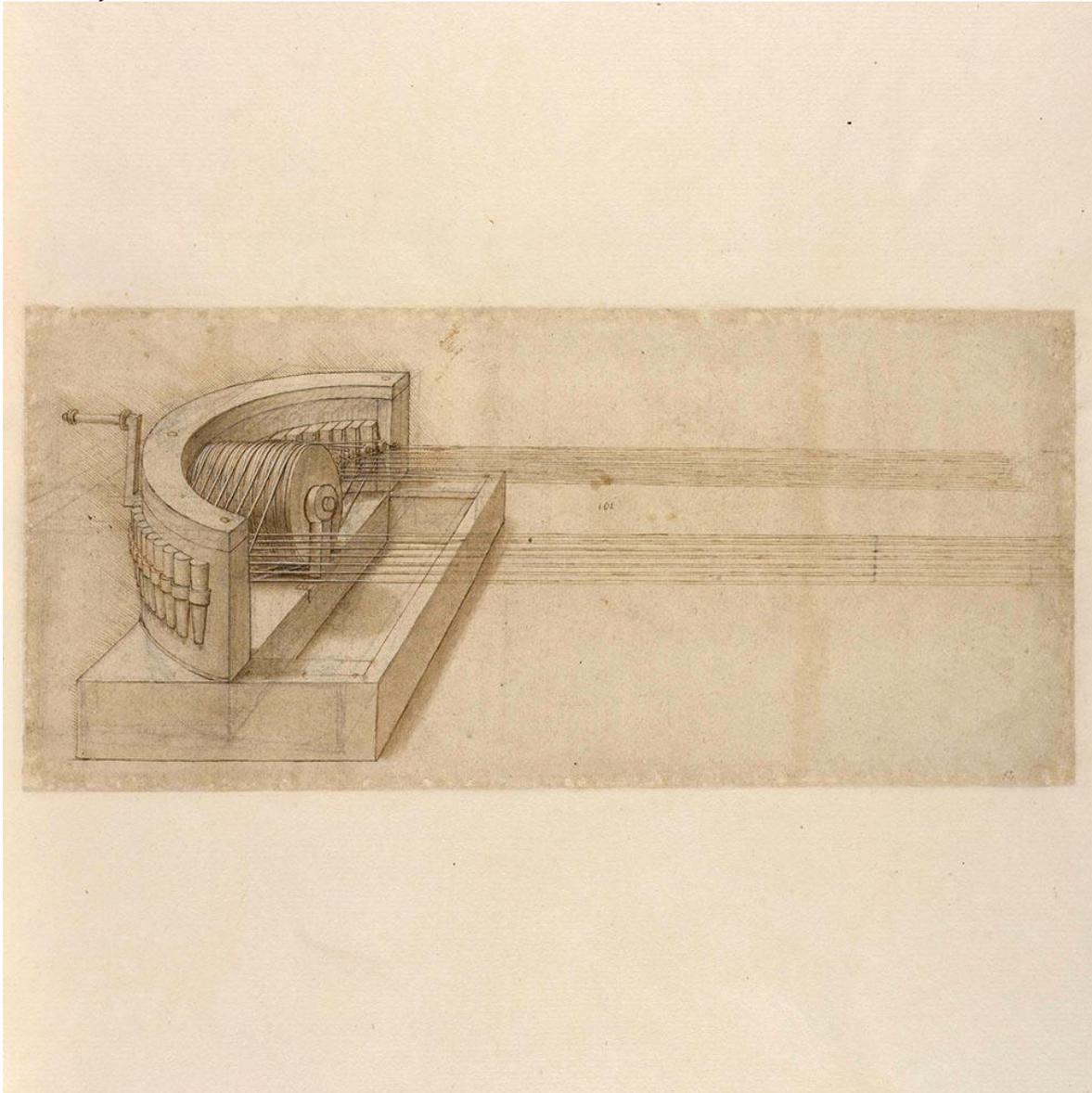
Graphic 10



Web log 11

# The Mindful Mona Lisa: Fortune's Wheel

By Max Herman  
Thursday, 11/04/2021



“*Pero si muove*” or “and yet it moves” was said by [Emerson](#), attributed to Galileo, and fundamental to Leonardo. It symbolizes how what appears static and fixed may move if viewed closely and long enough.

[Luck](#) is only half the story. Sometimes this is understood as the connection between [randomness](#) and pattern. Patterns have to arise, and without some randomness how could they? Mathematics, the general field behind the [Quadrivium](#) (comprising the ancient liberal arts of arithmetic, geometry, music, and astronomy, each thought to radiate from its own celestial sphere) is often occupied with this connection. Dante cites an interesting case in the *Commedia's* final canto: “As the geometer intently seeks / to square the circle, but cannot reach / through thought on thought the principle they need, / so I searched that strange sight.” They are looking for a clean, tidy, static number, but [pi](#) does not follow those rules.

Dante accepted [Fortuna's](#) honored place in the universe, describing her in *Inferno* VII as a noble deity who allocates change in human affairs impartially just as light diffuses and reflects by consistent laws among all objects. Neuroscientist [James Austin's](#) 1979 book *Chase, Chance, and Creativity: the Lucky Art of Novelty* places fortuitous observation (along with contemplation and active effort) at the imaginative core of scientific method itself.

Leonardo at times had a more bleak and modern vision than Dante. The early glow of modernization had already partly faded for Leonardo by the end of his life. He saw clearly how [aesthetics](#) and technology could be wasted, ignored, or used for simple consumptive greed and cruelty, in heavily systematic ways, as easily as they could cultivate life's wellbeing and potential. He saw also the transience of luck, modern or otherwise: “Wherever good [fortune](#) enters, [envy](#) lays siege to the place and attacks it.” As an engineer might ask of rivers that destroy the cities on their banks, Leonardo must have wondered how best ill fortune might be designed against. He tended to suggest methods like patience, indirect means, and respect for Fortune and [Esperienza](#): to guide the natural flow of history rather than oppose it.

[Machiavelli](#) was more impatient to direct what he called the “river of fortune,” praising direct amoral action which has the advantage of expediency but carries with it unignorable side effects which, being cumulative, can have devastating power even if tiny at first.

Fortune has remained a theme of great import far beyond [Ovid's](#) antiquity, pervading the medieval world via [Boethius](#) and folk tradition through to Dante, into the early modern era of Leonardo and [Montaigne](#), and continuing through to our own day via Emerson, [Tolstoy](#), Valery's "The Young Fate," Stevens' "Sunday Morning," and Eliot's "The Waste Land." David McCraw sees it in the [chiastic logic](#) and semi-random changes of pre-modern Chinese literature as well as the *I Ching*. Today's algorithmic art confronts randomness directly, and current [research](#) on quantum clocks suggests that time and chance may even inform the workings of gravity at or near the core of unification theories in physics.

The randomness implicit in quantum mechanics aligns interestingly with Leonardo's famous [assertion](#) that "mechanics is the paradise of the mathematical sciences because by means of it one comes to the fruits of mathematics" and resonates with Dante's image of rotating, informational, and omnipresent interlocking [spheres](#) whose structural fields of light in perpetual movement shape all events while eluding fixed terms of prediction, definition, and control.

In this sense even "the love that moves the sun and the other stars" contains a hint of [Galilean](#) nuance.

Next blog: lived history

## Essay 11

Fortuna then said to me:

“Whether your idea of the bridge  
 Is true or not might be immune to proof.  
 An artist sometimes will remain aloof  
 With rigor, obstinately, in an image.  
 No matter. Trace and keep the lineage  
 Undoubted and eternal, heaven’s roof,  
 That Leonardo made his high *Pont Neuf*  
 Fully knowing and feeling Dante’s verbiage.  
 Just as I helped your memory yesterday  
 With Shelley’s words ‘and keep thy heart light, lest’  
 You must compose your days not fight with chance.  
 Lightly with true calm’s the Buddha’s way  
 As well; he smiles as he knows best;  
 And Shiva treads down mindlessness in dance.”

Let me go back over where I’ve walked so far today, today being in this book and maybe the book before too. I’ve painted ten paintings. Last chapter was the moon, *contemplativa*, Clotho, parasymphetic so to speak, something like a mindfulness experiment, or Beatrice – executrix of helpful good events. Perhaps this one is somewhat too, like proprioception, a floating hand in air which senses where it floats. Wheels don’t sense how they turn around their moving center, but if they did, it would be kind of like how rivers sense their banks as they go by. My memory, my mnemosyne, as Warburg said, reposes by a river, telling me that Buddha also did which might be false. “A split hair’s difference, and heaven and earth are set apart.” Reading *Inferno* VII so early on first tipped me off that *Esperienza* does in fact serenely turn her sphere in bliss, as Emerson quotes, among the primal beings who smile. And as it so often does, one thing led to another.

The first Leonardo quote I ever took to heart, long before starting this twenty-first century foray, indeed within the depths of our ambiguous previous millennium which Calvino, with a rueful note, at

times feared would turn everything to stone, was helpfully simple: “Sometimes you need to step back from your work,” in order to see it, is how I read it. Can we ask for scientific proof that *Saint John the Baptist* is about Dante? Some might say it is impossible for Leonardo’s painting not to be about *Paradiso’s* tenth canto....

For what could be more subtle, nuanced, and ineluctable in tone than this, once uttered, never to be forgotten or overlooked, not even by those who never even read it:

Note how the wheel on which the planets ride  
Branches from there obliquely: only thus  
May the earth that calls to them be satisfied.

For if these two great motions never crossed,  
The influence of the heavens would be weakened  
And most of its power upon the earth be lost.

For if its deviation were to be  
Increased or lessened, much would then be wanting,  
Both north and south, from the earth’s harmony.

Stay on at table, reader, and meditate  
Upon this foretaste if you wish to dine  
On joy itself before it is too late.

I set out food, but you yourself must feed!  
For the great matters I record demand  
All my attention and I must proceed.

*Paradiso* X.13-27

Compare Leonardo’s semi-quote of *Paradiso* XIV’s first stanza, itself a quote:

“The water in a round vessel moves about  
From center to rim if it is struck from within,  
From rim to center if it is struck from without.”

Then later in XIV the spirits of the Sun explain:

As long as the festivity  
of Paradise shall be, so long shall our  
love radiate around us such a garment....  
When, glorified and sanctified, the flesh  
Is once again our dress [...]  
So will the brightness that envelops us  
Be then surpassed in visibility  
By reborn flesh, which earth now covers up.

Immediately next in XIV Dante rises to Mars, and hears the words “Rise” and “Conquer” sung in a hymn he doesn’t know and cannot understand.

Heeding Fortune I checked the Italian for “Conquer,” which Dante capitalized, a pun Leonardo often used in reference to his own aspirations, and chance with chase brought me to this, which I’m seeing in the original for the very first time now, today:

Ben maccors io chelli era dalte lode,  
però cha me venìa «Resurgi» e «Vinci»  
come a colui che non intende e ode.

Ïo minnamorava tanto quinci,  
che nfino a lì non fu alcuna cosa  
che mi legasse con sì dolci vinci.

Is this not a *Ricercar*?

Of course, *de rigueur*, perhaps Leonardo did not see his own name or *nome* in *Paradiso* XIV. I’m merely wondering about maybes. Alighieri couldn’t have known of any person from Vinci eventually making art, but as Cloninger wrote happenstance can randomize events not just into nonsense but sometimes into new free perspective. Yet it is truly random, like a DNA mutation. I can’t say there’s proof it happened with XIV, but such things can occur I would warrant.

Sometimes it circles back to my mind where this all started: a random chance January, in which my book club (not I) chose *If on a winter’s night a traveler* by raw and wintry chance. I have no idea how

that choice occurred. Yet it did, and I also read about Leonardo, Cavalcanti, Dante, and even Bartleby all in the same mix of *Six Memos*, a non-fiction by the author of the *If on a winter's night a traveler* fiction. This all collided with my attention to meditation a bit more during that year, a festival rejection in June, and a random encounter with stone circle art and meditation that same November which so happened to click into place with the festival rejection. I had nothing but this jumble to start 2019, but it was suitable enough for another festival-rejection-rejection planned by February.

Such was the canvas or stage on which I visited Paris in May and Florence in June. By very raw chance the Louvre went on strike on a given Monday, and also by unprocessed fate the Galileo Museum, within walking distance and by the river (which I wanted to go near) had a Leonardo exhibit. One could say: Paris-river-no Leonardo and Florence-river-yes Leonardo, or something. The rejection topic was the river's millstones.

Why did I decide to meditate while I looked at *Esperienza* for five minutes that August? Random happenstance within a fabric of themes hence some of each caused it. Did Leonardo cause it? Did Dante cause it?

Meditation, the executrix of beatific events, surfaced a bridge next to a garment. Did it match, like that old wheel Hüsker Dü? Reading to check, what words – after Leonardo's – were loudest? Of course, Dante's were!

Error: in *Paradiso* XIV, where I thought the appearance of "Conquer" might attach the canto to Leonardo's last painting, *Saint John the Baptist*, it is not he who speaks but Saint John the Evangelist, author of the Gospel of John and the Book of Revelation. Therefore my speculation is absurd: the canto's reference to water's motion in a struck vessel, "Vinci" as "Conquer," and how the body outshines the garments isn't John speaking. Second error: I didn't say that yesterday so this error is in

error. My thoughts on XIV are fine: the radiant garment metaphor is about the *Mona Lisa (Esperienza)*, goes the proposition. I apologize for this confused tangle.

It's XXVI of *Paradiso* where I thought it was John the Baptist speaking, in my great counfoundment, possibly referencing thus Leonardo's final painting by way of Ananais' restoration of sight. I thought that Leonardo's painting with so much shadow and darkness could have been a reference to the restoration of sight after blindness caused by too much light. That's the error I wanted to point out. The painting could be a composite though, of the elder Baptist with the younger Evangelist, like Circe and Sirena; this might explain why the person in the painting is so young, and it would add in the warning or dark shadow of the end of days which for Leonardo's own were certainly approaching.

Having wasted nearly all my words allotted for this day, I wanted to mention: spheres four through seven do match the Quadrivium, with the Sun's alluding to arithmetic in the sense of accuracy, Mars to geometry as well as war, Jupiter's to music, and Saturn's to astronomy. (Of course, those are not the only themes in each sphere.) There's a great chiasmus in XIV, i.e. 1-2-3-3-2-1. Reading the *Aeneid* books 9 and 10 last night the pivotal role of Fortune and the Fates is clear – they and his own choice determined Aeneas' victory, not a *deus ex machina*. And the *Commedia's* hero is the *Aeneid*.

Virgil calls to Helicon in 9-10 as muse of Aeneas' victory as Dante to Helios in XIV of his own, though I believe Leonardo preferred to term the Fates Necessity.

Checking the *Metamorphoses* for Fortune references I found only one passing one, nothing pivotal. Rereading Valery I'm convinced again that Fortune is relevant to how he sees Leonardo (and perhaps to "Sunday Morning" too)? Yet all this gathering in has had its turn and now I'm bringing it all to a close. Is there any luck in comparing Leonardo's *Saint John the Baptist* to anything in Dante? Too late to tell, here, so to speak, so it will carry to the next book or chapter if at all.

Still, the book club read *Père Goriot*, which is definitely about how clothes relate to fortune. Is Père a kind of mourned ideal-paternal? Seems so, but uncertain. Valery talks about prediction when he names “a foreseen category of minds to which the whole is specially addressed,” and how the purpose of architecture is to move perceptually not sit still. Is he telling us that the *Mona Lisa* is architecture, not “a painting”? I think so, one which partakes of the probability of perceptual mechanics he saw in physics. Yet I don’t see Fate prominent in 1894’s “Introduction,” so perhaps 1917 made it so.

Of course, I wanted – needed – to see the *Mona Lisa* in *Inferno* VII. If nothing in Leonardo is about Dante, not even the seemingly taken for granted “beloved lady” of courtly poesy, how could I connect the *Mona Lisa* to Leonardo’s own story of *Esperienza*? Well directly of course. There’s no need to triangulate at all, no problem whether Leonardo’s *Esperienza* aligns with, was influenced by, Dante’s beloved ladies Beatrice, Matelda, and yes even Fortuna, not to mention his own *esperienza* (small e), or not. This makes it a case of camouflage in plain sight, a very natural sort, not invisible just unremarkable, understated, as Leonardo described Nature’s own design “where nothing is superfluous, and nothing is wanting.”

You have to experience it for yourself, try the experiment, of identifying your own conscious present-moment experience with the sitter’s, while she views you too, and at the same time sense the moving structures of the bridge, and the garment, and all that they imply. Can this happen, and will it? We ask for a guarantee –

The ability to adjust to what chance or Fortune brings is perhaps the core skill of biological life. Adaptation, the word itself, is not about determining every detail of every scenario and every shift in one’s environment. On the contrary, it is the polar opposite of such rigidity. Life forms itself to its setting by slow processes – glacial, alluvial, geologic – never by the abrupt imposition of a pre-ordained template. What works, works, and what doesn’t, doesn’t. Leonardo wrote as much, and often.

For information-rich species like fungi, conifers, fish, and humans, imaginative consciousness is also required to adapt. If one always sees or thinks the same thing, one never thinks or sees anything at all. Perhaps Fortune is something like waves in water, or weather, and biological information like the birds, fish, or boats wending their ways amid them. Leonardo would have called – Dante too – these patterns of adaptation and response forms, or forces, or energies, or Nature’s Hand, or what have you. We don’t have much more of a vocabulary at least that I’m aware of. In this sense, a fish’s scales are a garment of biological information worn not just by the fish but by the ocean, its waves and currents, its plankton, rocks and coral, suffused sunlight and oxygen.

Perhaps we may understand culture this way too, that is, human information practices, as a fabric of replies and replies to its replies to and from the flow of events including random chance. This kind of a fabric has to be understood dynamically, like the continuous weaving and unweaving of a forest’s subsoil layer of roots and tendrils. It’s not like a shirt you buy at the store wrapped in plastic, or maybe it is – mortal, evanescent, and wispy in its transience as the shirts made for you are, spun on machines, spun around the globe to your waiting hands, prone to wear and stain and unravel as you wear and expose them to the world back again.

This life, as what Sterling called “predictive regulation,” is not however void of awareness. It finds patterns in the gifts of fortune and learns songs of a kind. Dante saw this too, and Ovid, Lucretius –

Yet I digress, and feel most cramped within these closer bounds. How few words remain to me for talk of chance, and choice, and human consciousness! Barely three fours in all and of those less than two unsung. This book is but my first of many, I dare say, should my oat proceed on Arno’s bank.

I sing today of this: “keep the grass far from the goat.” “*Ma lungi fia dal becco l'erba,*” said to Dante in *Inferno* XV by his mentor Ser Brunetto, damned for unsanctioned love – a damnation Dante clearly hesitates to relish in -- yet that is not the point here. Rather, this canto mentions *fortuna* or

Fortuna three times full true: “*Qual fortuna o destino;*” “*ch'a la Fortuna, come vuol, son presto;*” and “*però giri Fortuna la sua rota come le piace.*” Brunetto tells Dante to pursue his dream star, and Dante says he will what come what may – he throws down the gauntlet to the universe.

Ser Brunetto’s book is titled *Treasure*; and Virgil chimes in like the chorus in an ancient play or one by Beckett, wry but ominous too like Il Commendatore in *Don Giovanni*, A Cenar Teco – let’s have dinner.

Is there any doubt, can there be, how much Dante respected and pondered Fortuna?

Then remember Ovid, who Dante called great: everything that is, is changing, and changing into something else. Fortune’s wheel turns within each thread of every cloth, every river’s stream and bank, each heart, eye, hand, and smile. Helios is one image: the sun’s energy or *forza* turns all, every helix, every wheel, all are from the same prehistoric root word of turning and twisting, revolving; or as Leonardo wrote, “Ivy is for longevity.” He also wrote that one should have a star, not strive to bind or calumniate Fortuna; he and Dante both wrote of boats and seas, passages, journeys, and transits.

The door of each life slams quickly shut, do never doubt. What matters is whether Leonardo’s *Mona Lisa*, which is *esperienza* for certain and almost certainly *Esperienza*, is part Beatrice (presently unquestioned by established Ivy League experts) as well as Fortuna. No matter what, we know she is part fortune.

Does Fortune turn each wheel in the *Commedia*? We saw her very portrait in *Inferno* VII, beatific and mighty as if throned, her powers brought home directly to Dante in XV by Brunetto. In *Purgatorio*, Fortuna Major introduces Dante’s central dream vision of Sirena -- illustrating his own sin of pride and intoxication by hollow, decaying artifice -- as if to say “my great good luck was to be shown that shallowness would be the death of me.”

What do we see of Fortune in *Paradiso*? Canto XVII, the sphere of Mars has Dante's warrior ancestor Cacciaguida deliver an *Aeneid*-like account. A future decent leader is foreseen, Henry of Lombardy:

"Sparks will have marked the virtue of the Lombard:  
Hard labor and his disregard for silver....  
Put trust in him and in his benefits:  
His gifts will bring much metamorphosis—  
Rich men and beggars will exchange their states."

These are themes of Fortune's wheel.

Then Dante says,

"After that holy soul had, with his silence,  
Showed he was freed from putting in the woof  
Across the web whose warp I set for him...."

Note the weaving reference, warp and woof, in the context of question and answer, future and fortune. Then there's more, Dante asking his forbear how harsh he should be in his writing:

"I learned that which, if I retell it, must  
For many have a taste too sharp, too harsh;  
Yet if I am a timid friend of truth,  
I fear that I may lose my life among  
Those who will call this present, ancient times."

How marvelous a discussion of the writer's profession!

Cacciaguida heartens his young descendant:

"Let all that you have seen be manifest,  
And let them scratch wherever it may itch.  
For if, at the first taste, your words molest,  
They will, when they have been digested, end  
As living nourishment."

Then a note on style, to end this poetic ancestral prediction:

“the mind of one who hears you will not  
 Put doubt to rest, put trust in you, if given  
 Examples with their roots unknown and hidden,  
 Or arguments too dim, too unapparent.”

How arrogantly absurd to claim Leonardo heard none of this, saw none, felt none!

He wrote, inscribing the marvelous and piercingly relevant *Cloudburst of Material Possessions*, c. 1510, “O human misery! Of how many things do you make yourselves the slave for money!” This means the middle way of Fortune’s least disastrous. But O, far more conclusive, soaring above the maze of foolishness, his allegories of Fortune: what he drew.

Fortuna, I’m learning, could be depicted with a rudder, a horn of plenty, a wheel, standing atop an orb or semi-orb, holding a sail, or directing wind at the tree or mast on the ship of a human life. Most crucial for me today, this unknown day, learned yesterday, are two attributes: her long hair blown forward, as if looking backward, as Occasio (deity of apt timing), and having wings. To see what Fortune meant to Leonardo, in 1481, 1483, and 1516, circa, look at his *Allegory with Fortune, Envy, and Ingratitude*, his *Allegory with Fortune*, and the *Dog/Boat/Eagle*. There may be more, since *Dancing Women* has one figure with hair blown forward.

Leonardo cared deeply about the ideas and principles surrounding Fortuna – one look at the broken trees in the 1481 and 1483 allegories will tell anyone that. The tree of art and life, what Dante even called of Paradise, depends on *events* – it is not “outside” of the world, ideal, remote. The world *is* events.

Or consider *Paradiso* V.97-99:

And if the star changed then and laughed with bliss,  
 What did I do, who in my very nature  
 Was made to be transformed through all that is?

Leonardo wrote often how Time destroys all virtue. How then can humanity develop? No obtuse early technician, he wanted something that would not only last, but be worth keeping; no sluggish idol or brute dogma but a living body or “vegetative soul” of humanity not unlike the planet’s.

Then the song played: *La, la, la, je ne l’ose dire!*

This is how the *Mona Lisa, Esperienza* – consciousness through time and chance in her essence, mnemonic but also active and imaginative too -- partakes of Fortune: in how humanity might learn, create, discover, grow, correct itself, and sustain both itself and the living planet through time. The light touch, *n’est-ce pas?*

All creatures have an inborn care for space. Last night, while I slept in deep slumber, the deer-hunting moon occurred, November’s full, along with an eclipse which neared the total. Three hours the jaguar devoured our echoing friend, etched with penumbral crimson on its rocks, and some brave few faced up to warn it not to prey on earth. The longest such eclipse since one and four and four and one, I lacked the fortitude to watch except as hoping to atone in thought.

“Bitter constraint, and sad occasion dear” wrote one of my authors, guides, teachers. Perhaps today is one of those as well, the blood-red tide upon our closest sphere my sign. For what is Valery’s “reasoning by recurrence” but the roots of experience, “emerging from many attempts”?

No matter. Back to Leonardo’s three allegories of Fortune. O how incredibly important they are! You must, my reader, and mayhaps his viewer, look on them. Make friends with them and so the mind they saw. The tree is torn and broken – exactly as in the *Purgatorio* XXVIII as I recall. No, that was canto of the other sign, the gesture upward from across the Lethe. The tree is in the pageant, XXXI or so. What can we call that which endures through every storm to bear the fruit on which our life relies? I know no other word or living thing but tree. I met a giant tree yesterday by the river, my new place, farther down the stream, and greeted it and will again today.

The tree in Dante is the tree in lee -- in parallel, as all who draw can see.

*Inferno* canto I, the first of all, placed mid-way through this life of ours, makes clear: Envy, *invidia*, unseeing, brought the ravenous, seductive wolf from hell to block our way. (I see it as a male and female both, and neither, mirror of the self unpropertied.) One could call it simply "greed that's never sated." It does more harm to more than even lies and wrath, lion and leopard. It mates with everything. Who brought it? Pale ire, envy, and despair! Never forget.

Allegory 1481 shows envy, 1483 occasion, hope....

Fortune for Leonardo in Dog/Boat/Eagle c. 1510-1516 of course meant something different, as it must have half a lifetime later. The topic isn't trivial, even though I can't nail down a tidy answer for you. I once heard some people associate the *Mona Lisa* with Isis, the ancient Egyptian moon-deity and savioress who controls fate. I thought "how absurd, that's alien Elvis." But now I know that the syncretic Fortuna-Isis had temples in ancient Rome and even long after was Isis associated with Fortune. So I'd have to call that a maybe, sure, but definitely not alien Elvis.

All the clue-chasing and proving is winding down for this book. Clotho's older sister has measured out the thread, and less than a chapter is left. Before too long the oldest of the three will wield her shears and the book will end. May Time soon bring that day!

I ate a second grape at the river vine, maybe I mentioned, in November. Notarized, herein thereby this day, etc.

I've read about half of Masters' *Fortune is a River*, haven't found any great quotes. I'll read the rest during the next and final book next year, and none of *Il Principe* till then. I've gleaned enough about what Machiavelli thought here and there. I will say this: as he attempted to corral and coerce Fortuna,

so did the twentieth century: Freud the internal, Nietzsche the external, Marx the collective. All failed, and left this century the mess. We need a different path.

Dante showed the path of Love, of Beatrice: love of wisdom, love of truth, love of beauty, love of the human and of the divine, love of nature and of all the sciences and arts. He respected Fortuna as a constraint, and deemed the pride that seeks to coerce a sleeping, envious, blind path into darkness. Leonardo understood Beatrice, and he understood Fortune, visually in his images as he did in his writing verbally. The bridge between the two, our *sensus communis* by the optic chiasm, appears afresh in a new article in Quanta about the brain's predictive imagination; it quotes Al-Haytham, who Leonardo and Dante both studied and who Kemp quoted. *Pontem veste textit...*

Leonardo wrote of Necessity with echoes of fortune in his tenor. One example: "Necessity is the mistress [*maestra*] and guardian of Nature." Another: "Oh! marvellous, O stupendous Necessity — by thy laws thou dost compel every effect to be the direct result of its cause, by the shortest path. These are miracles..." Or this: "Necessity is the theme and the inventress, the eternal curb and law of nature."

Here we see a formulation fundamental to all complex systems of energy, intuitively grasping both the entropic and the gravitational impetus: "In many cases one and the same thing is attracted by two strong forces, namely Necessity and Potency. Water falls in rain; the earth absorbs it from the necessity for moisture; and the sun evaporates it, not from necessity, but by its power."

For Leonardo the inexorable turning of Fortune, more powerful than any human effort or attempt at order, was less a single wheel than an all-permeating dynamic of revolving contrasts in infinite variations of type, character, and degree, from the tiniest leaf on a tree to the ocean tides. Necessity also governs *Esperienza*: "Experience, the interpreter between formative nature and the human race, teaches how that nature acts among mortals; and being constrained by necessity cannot act otherwise than as reason, which is its helm, requires her to act." (Compare *Inferno* VII.89.)

Valery captures the tone of this, writing of Leonardo and architecture:

“The monument (which composes the City, which in turn is almost the whole of civilization) is such a complex entity that our understanding of it passes through several successive phases. First we grasp a changeable background that merges with the sky, then a rich texture of motifs in height, breadth, and depth, infinitely varied by perspective, then something solid, bold, resistant, with certain animal characteristics – organs, members – then finally a machine having gravity for its motive force, one that carries us in thought from geometry to dynamics and thence to the most tenuous speculations of molecular physics, suggesting as it does not only the theories of that science but the models used to represent molecular structures.”

What could describe a more explicit list of the elements of the *Mona Lisa*, of *Esperienza*?

Here’s a coincidence for today: by chance I learned the name of a local sculpture called *Spannungsfeld*. It’s two kneeling human figures facing each other, invoking quantum principles (“tension field” means that which connects particles etc.). This relates to Valery. Two seated human figures is also us, if we look at the *Mona Lisa* while sitting. Are these connections random, and meaningless? Or that the sculptor of *Spannungsfeld* uses non-western ideas, and thus, perhaps – I don’t know for sure – ideas of zazen meditation? Or maybe he’s a sexist fool.

If you roll a die, and *alea jacta est*, and get five two times, that’s not coincidence but inevitable Fate. Is it inevitable that the sculptor of *Spannungsfeld*, still living, in a town where I have a good friend who is also a sculptor, eventually considers the hypothesis that the *Mona Lisa* is about meditation and also about Fortune, randomness, and pattern? It’s both.

Today’s theme was to be whether Dante’s use of Fortune, its influence on Leonardo, *Esperienza*, or the *Mona Lisa* matter. What is the Necessity here, the gravity enforcing pattern on the randomness creating its geometry?

Meditation, or waking rest, is as necessary for brain function as sleep or sleeping rest. I have been meditating, and reading Dante, and visiting the Mississippi, and writing several days in a row. So I know a tad, a microbe, of what I speak.

Furthermore, "*spannung*" must mean "spanning." Bridges are related – pairs. Dante shows the necessity of meditation in the dream of Leah and Rachel, the *vitae* active and contemplative. Rachel is Beatrice, and Leah weaves (both sit). Meditation is both still and not still; much cannot happen without its stillness. Awareness more free – less causally bound – is one. The winged Fortune that is Hope, a Swan even, means health and healing biologically need stillness sometimes. Too much causation stunts the gentle patterns of affinity, the weak magnetic forces, which may with rigor be named a love which moves and animates all things. Its voice, *Amor*, may be heeded as guide and teacher. This matters for you, and for me, and how much beauty we see and feel, the freed *forza* of *Esperienza's* form, its *vita!*

Meditation, calm, or stillness, in balancing amounts, allow you to be. Without some stillness and rest, we are not. Sitting, letting thoughts pass aware unclutched, we feel the pull of the earth in all cells and fibres and thus are rooted. I assume an iota of knowledge of this in you; if not pass on, until experience grace provides. If yes, why bother with *Esperienza*?

Firstly, the image looks well – it shows itself better, almost as a symphony on entering the hall. From without there is more shadow, fugue, and haze, which aren't all bad of course. But the feeling and experience I got from seeing the *Mona Lisa* this way was physical, like that of sitting meditation both proprioceptive – to sense one's own corporeality – and interoceptive – to sense one's state. None of this made the image schematic or rote, but on the contrary, it breathed, moved, and expanded. Such an experience stays with one, like the "first ray" Dante mentions we get, being new to us, by good Fortune.

The *Mona Lisa* has matter, it matters, in what it means and does now. This is given. Thus, if its meaning changes that change matters too. The change mattered to me, in a way I felt drawn to express.

It might matter to you. It might matter to others in an aligned or cyclical way. Therefore it might matter to the group, a group, or communities yet unformed. It even might influence decisions, and who knows, even for the better by creating better options. It might be worth a look – some time.

*Paradiso* XXII is an example of such a look. Read it, or, know it's Dante's earthgaze downward from the sphere of Saturn, the seventh, Time, just before leaving the Quadrivium. The canto's a marvel I never much noted till today. All turns, and those who turn with it may feel, see, and know. The spatial-visual character of the canto, almost vertiginous, vertical as Jacob's vertical bridge, may be rotated, multiplied to sense the *Mona Lisa's* arc and turning too. Or think: *Fortuna-Arte, Fortuna-Mundi, Fortuna-Scientia; Fortuna-Me, Fortuna-Tu, -Amor, -Clima, -Natura, -Pace, -Beatrice, -Techne, -Justicia, -Speranza, -Commedia*. Then truly see, and learn to sense, *Fortuna-Esperienza*.

*La, la, la, je ne l'ose dire!* A lovely song in three, a dance of grace it is. After "Little Harmonic Labyrinth" I hear it sometimes before "A Musical Offering." A Musical Offering. I can let the wheel turn, of chance, inevitability, healing, the I Ching, energy, day/night, zodiac, the moon, my sleep and my waking. My breath and my every cell bring in and bring back out across, each new and a return.

Yesterday Dante spoke of Gemini, his doorway to be born and guide-image allotted to him at birth, thanking it and asking to be able to write well as he finally reaches the sphere of stars in *Paradiso* XXII. Here as of yesterday it is Sagittarius now, the centaur, half person half horse, the mixture who shoots arrows that never miss and knows medicine. I checked. As anthropological experiment, I sometimes open books to random pages to choose an item unpremeditated. I found *Chun* that way last book in I Ching, this book *K'uei*, and just learned that is called "Virgilian lots" (viz. the *Aeneid*). Without random recall, how could we recover faded memory? We'd only find the freshest. In *Paradiso*'s second sentence, memory cannot serve: "*la memoria non può ire.*" Jung's "cauldron" introduction to the *I Ching* shows the calm pragmatism, balancing not superstition, of this.

What is *A Musical Offering*, but a curveball sprung on Bach the Elder by fate, his own son?

Each day we weave anew while wearing yesterday, chance and pattern threading each.

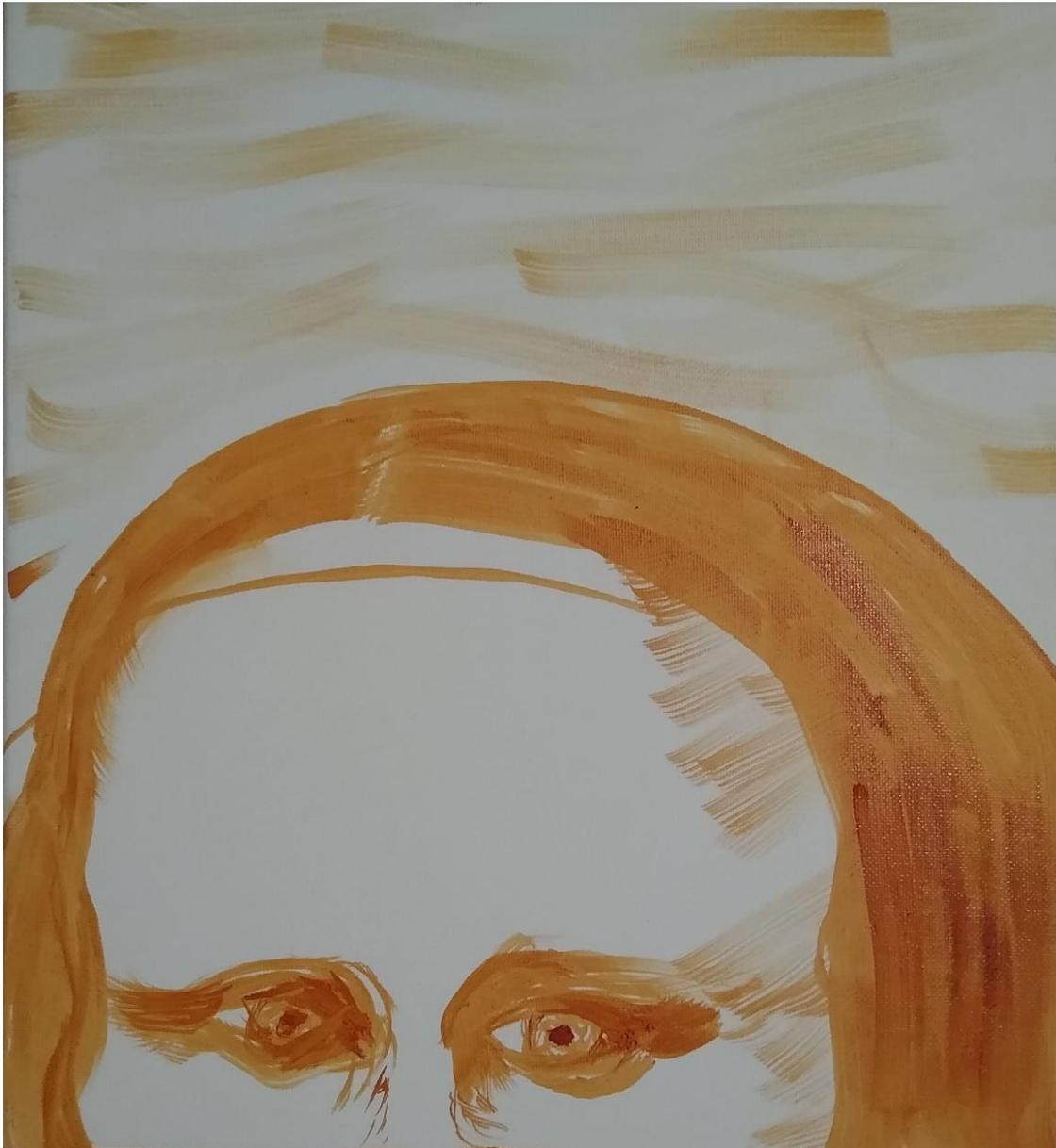
Is the true value of the *Mona Lisa*, of *Esperienza*, if buried, lost? Can it return?

Fortune's wheel denudes the falling human and the rising clads anew.

Isn't this how the brain and heart wash themselves in the river of events? A brain that never forgot would suppurate of its own agony. The touch of benevolent memory is light, and its garment.

Why does Dante float and even flash upward? To emulate light, as the *Mona Lisa's* hands, a *pentimento*, linger in perfect *spannungsfeld*, perhaps the only one, as the feet of Matelda turn in perfect lightness, Terpsichore, by Lethe's flowered stream, and those of Leonardo's *A Woman Standing*, pointing to nothing --

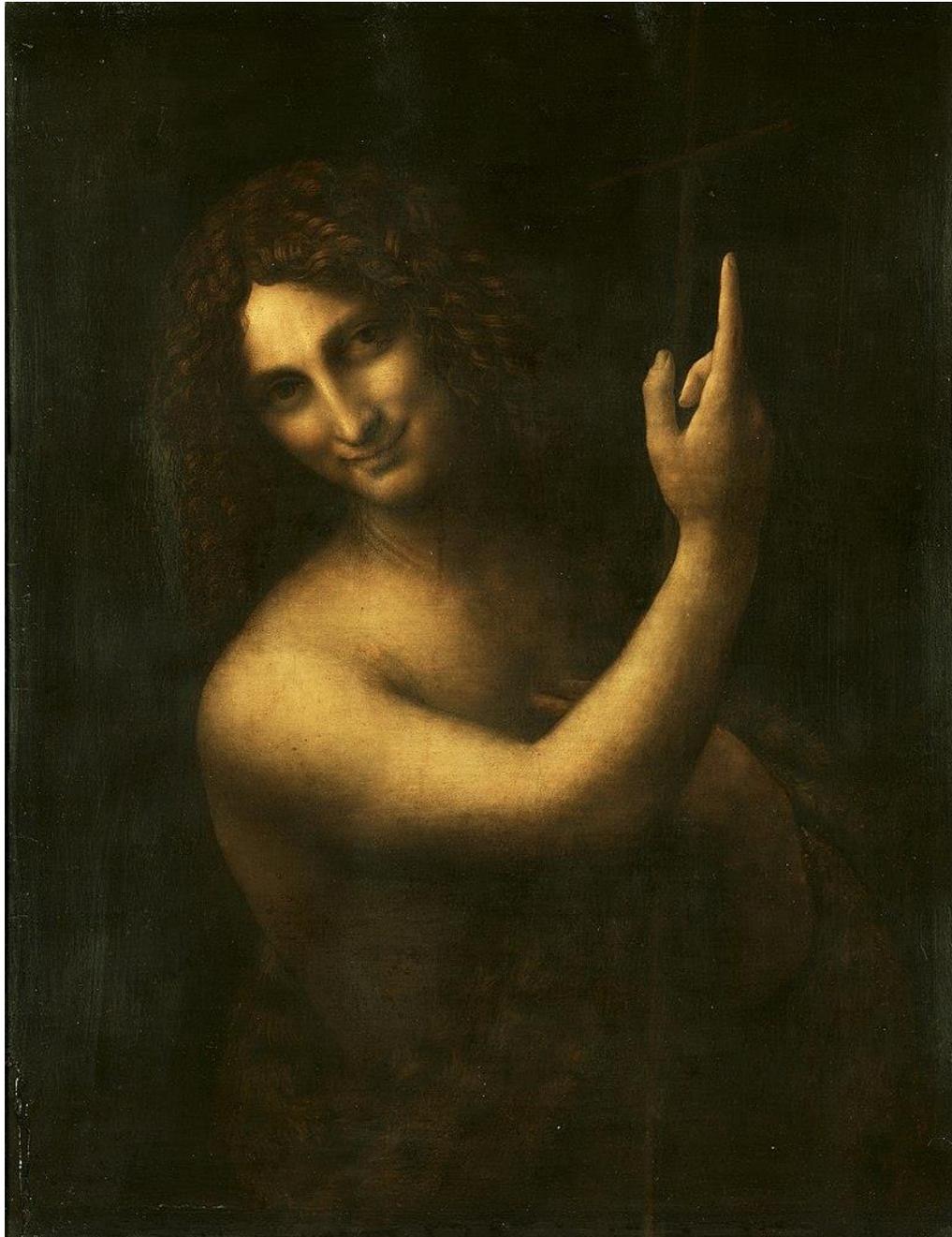
Graphic 11



Web log 12

# The Mindful Mona Lisa: Living Garment of History

By Max Herman  
Thursday, 12/02/2021



Fabric is more geometry than network. Images are like maps of terrain, multi-purpose structures like those of the [brain](#), upon which unceasing streams of information form scenes, stories, and the transient phenomena we sometimes call networks.

As Leonardo's final painting, *Saint John the Baptist's* stark simplicity, glowing to emerge from deep surrounding darkness and clothed only in ascetic animal hide, poses interesting questions. How does it resemble and differ from his penultimate work the *Mona Lisa*?

John is sometimes called "the Forerunner," and Leonardo may well have interpreted this in the sense of a new modernity. The saint is depicted youthful and robust, not elderly and gaunt, which evokes the burgeoning confidence of the new Renaissance arts and sciences. Gazing at the end of his life into the modern future he did so much to usher in, Leonardo's figure here confronts the viewer smiling, [chiastic](#), and complex, yet has none of the replete serenity of the *Mona Lisa*.

Perhaps Leonardo means to say that the balanced, holistic [garment](#) of the ML, authored and engineered in rich harmony with the natural world, is not a guaranteed result but only a vision of one possible future. The work of building a sustainable modernity -- perhaps humanity's most important design challenge -- is not done but barely begun. And who is responsible for this future? We, the viewers, the students and observers, the followers who then were yet to come, art and science unfurling ever forward in time.

Why does John point to himself, then upward? This expresses the forerunner nature of his being and role in biblical narrative. Yet there is something so direct about John's gaze that Leonardo's own gaze can, arguably, be sensed. And in a strictly literal sense, is the gaze not indisputably Leonardo's own?

It is in perfect keeping with the principle of *Esperienza* and the temporal processes of all art, science, and Nature for Leonardo to remind us as if in his final image: "I am me, and mortal, and though you are like me you come after, and when I am no longer." The starkness of this truth – and of all that depends upon it – rings true to

Leonardo's final spoken words apologizing to humanity: "my work did not reach the quality it should have."

It's difficult to perceive optimism in the *Saint John*, but Dante's return from the afterlife can provide a hint. The poet [traveled](#) to the end of time, but then returned to resume his place within it. He still has life left, and the added balance of a will and desire which revolve in harmony with the "love that moves" the cosmos. If Leonardo is paralleling John the Baptist with the younger apostle John, Dante's imagery of light and shadow may pertain from *Paradiso XXVI*: "light will startle [one] from sleep.... confused by what [one] sees." In any case, [Virgil](#) as forerunner to Dante aligns with Leonardo's own self-orientation toward the artists and scientists of today.

To the [garment](#) of [technological](#) and built environment it has been humanity's legacy to weave, Leonardo contrasts the saint's – and perhaps his own – state of hardship and exposure to "the wilderness" of fluctuating [circumstance](#).

Leonardo's final painting reminds us to not just predict or theorize the positive outcomes available to modern science and technology but bring them to fruition. His great legacy is to show how fundamental art, poetry, and the imagination -- the active life of intellect in all its forms and nuances -- are to the process of [sustainability](#) becoming real.

Next blog, March 2022: Leonardo, [Machiavelli](#), and the politics of sustainability

## Essay 12

Matelda then spoke to me and said:

“Authors kind of make things as they go,  
 As in the way I knot my flowers gazing.  
 Rachel, Beatrice, contemplating  
 Are just a little different in their flow.  
 That no one understands this of course you know.  
 No one wastes their screen time meditating  
 Or pays attention to whether they are phasing  
*Activa, contemplativa*, in a row.  
 Ignore all that. What you are bound to do  
 Is just to gather blooms and strings of meaning  
 Observe what *Esperienza* to you guides  
 And echo what in turn she guides you to,  
 As if you were a mirror repercutting  
 Intero- and proprioception to the tides.”

Maybe the *Saint John* is like a simple dance step: I, you, you, I. Or as Dante says, “you-ing” and “me-ing” – who’d ever thought he talked that Dickensonian way? “She who does imparadise my mind.” That’s Mona Lisa, *Esperienza*, the bringer and executrix of life’s information. Remember, Paradiso is modeled on the spheres, from moon to fixed stars, *primum mobile*, and Empyrean, whose rotation infuses all that exists by light with knowledge and love. Compare today’s Quanta articles, one about how gravity waves mark space and another on geometries of motion, and look at the pictures. Leonardo was on the path to these concepts, saying, “the concentric sphere model is fine but too simple.”

As Dante said in *Convivio*, to author is to weave, letters into words into sentences into books. Its products we wear, a *pertratatto nodo*, like a dance is worn. See? It’s how playing tennis your shoulders don’t just know or see the lines but feel them and even, literally, *are* them. It’s how Dante in *Paradiso* first hears the music (silent) of the spheres, then feels it, then *becomes* it while remaining, mortally, not it. Harrison quotes Rilke about “catching a ball thrown by a cosmic teammate,” like my blog title

“caught” the Goethe phrase I never knew, in a “great bridge-building.” I did however read some of *Sartor Resartus* in 1988, perhaps exactly thirty-three years ago. (It was cold, I recall.)

*Trasumanar significar per verba*  
*Non si poria, pero l'esempio basti*  
*A cui esperienza grazia serba.*

Leonardo called himself *altore*.

Knots relate to authoring, to the *altore*, to bringing together what might not be. Knots appear in *Natura*. Dante writes about “loosening the knot of debt” for wrongs in *Purgatorio*. There is also the knot of confusion, the confused mind, which Beatrice often helps Dante untangle. Leonardo had his knot/maze/emblem images, insignia for his *Accademia Leonardo Vici*, and his mysterious looping semi-signatures in the Paris Manuscripts. Was *A Musical Offering* based on a knot? What about the marriage knot, the love-knot? The *Little Harmonic Labyrinth*, a hint which may well have started all this, is kind of a musical knot. A *pertratatto nodo* is, well, a knot.

Is a fabric a knot? There's a lot of math about knots because they are topological, similar to topography, having to do with surfaces. Surfaces, like donuts, relate to categories. A fabric is a kind of knot between two threads, perhaps, overlapping at right angles. Knots add a dimension say, a structure, at some cost of fluidity.

Today is in Sagittarius, the chimera and archer.

Is not the layered core of the spheres a knot? The solar system is knitted together undoubtedly. Even yesterday's random article was about orbital stasis. Yoga is from yoke, to knot or knit the breath and the mind together; its purpose is balance, stability, calm, without which there can be no orientation whatever much less orienteering.

The sphere of the fixed stars, level 8, is about physics and metaphysics. Constellations are kind of like little knots or whorls in wood. The stars are a cloak or garment too, some with figures inwrought, figures dim, just as Leonardo painted letters into garments' hems, quasi-letters, as did his peers too.

Of prime importance: Leonardo said in the *Paragone*, comparing painting to poetry, that both can show "*molti morali costumi*" or "many moral costumes." Read this as moral customs, or intellectual clothing, and more. Witness Kahlo's portraits, one mirror-heart knotted by bridge-veins to the other, wicker chair arm to sloping shawl, the tree of hope. Barrett's illness devotedly aided by the Florentian visitor of Childe Roland, crossing like *Inferno VII*, Fortuna's canto, a marsh of corpses to a dark nameless tower, parallels, *Paradiso XXV's doppia vesta*?

*Teks-* is the prehistoric root, the Proto-Indo-European, of technology, *techne*, all art and craft. It is the root also of textile, and of text. It means weaving, as I've mentioned before. Passing one strand over and under another strand, the first great technology of peace. It warrants heedful contemplation.

For me, for this garment here, time is running out. Yet that is no matter, or, is exactly the point. In *Paradiso I* Dante says we start forgetting imaginative experience as soon as we start describing it; somewhat true I suppose but Leonardo had views on intertwining them. That canto also notes the force that moves all phenomena holds the planet together, as Leonardo said, its two halves each holding the other planetary half up and in place like the twin arches of bridges. Things are interwoven, is the idea.

There is an illusory sense of power and freedom in technology. You think you pick up the sword, but the sword also picks you up. You think your screen opens your eyes, but it also covers them. We weave technology, but it also weaves us. We wear it as we weave it, what Shakespeare called "the raveled sleeve of care," it shapes our habit waking though sleep, the soft embalmer, can repair.

The "double garment" in Dante is the imaginative body and the biological body, each restored in different sequence in human narrative. Barrett-Browning wrote of Da Vinci's irrigation *techne* in *Aurora*

Leigh, English practicality arching to meet Florentine arch-bloom, her parents. Without imaginative reason, can biology survive? Dickinson notes Barrett's grave in "Her – Last Poems," but I saw her house in *Firenze* the trip prompting all this. I go to the river, meditate, read Dante, and write this chapter daily.

Remember from Book One, when I found frozen books at the river's edge, pages open as if read by each rill and wave? Frozen fragments nearby, the layered wholes sinuous, smooth, almost warm. Did Leonardo see the liquid patterns in igneous rock and think "of course"? Faith, Hope, and Charity or Love are the subjects of sphere eight, the fixed stars in *Paradiso*, physics and metaphysics, and they are simply the mechanics of imaginative reason!

Meditation: is it the missing element, the subtle turn, which ray-like may revolve the time, bridge East and West, soothe disastrous days, and bring the best new phase? *Ricercar, ricercar, con doppia vesta:*

Dice Isaia che ciascuna vestita  
ne la sua terra fia di doppia vesta:  
e la sua terra è questa dolce vita;

Or in American English:

Isaiah says that all of the elect  
Shall wear a double garment in their land:  
And their land is this sweet life of the blessed.

Take a minute to consider *la dolce vita*, the sweet life. What makes it sweet? What gives daily life – a coffee, sound of harpsichord, sun on snow – sweetness, of fragrant calamondin? Small repeating dopamine release, bluntly put, no more miracle than mitosis. Each breath in sitting meditation pulses with sweet radiance.

There is no denomination to this truth -- hence have I none -- though from fear's amnesia "after great pain" images of its bodily return abound. (Does not evidentiary faith, from *Paradiso* XXV, evoke the molten core of predictive regulation?) Botticelli drew Beatrice, in *Purgatorio* XXXII, as *Sapientia* -- not sapiens -- guarding the tree with seven virtues. I look it up: "*Sapientia* or Sophia is wisdom in many religions." Meditation is the life of knowledge, parent of wisdom, its air, earth, water, and even its fire. It is neither Communist nor capitalist, atheist nor monotheist. Further, it is no datum object but fleeting -- nothing -- fading and returning ever, experimental like *Esperienza*. She is its patron and *maestra*, its messenger, mirror, guide, and friend, immortal.

What is the history of meditation, and how does it relate to vision, imagination, to words?

Leonardo explains: the artist, every human, of the best future "sits in front of [their] work with great ease, well-dressed... [Their] clothing is ornamented according to [their] pleasure." Hear Valery again: ornament, *ornement*, ordering, "rise from metaphor to metaphor," "Ten minutes of simply considering one's own mind," *ordiri*, "sometimes to sheer consciousness of pleasure." Compare Erasmus' "monk within the cassock to the man within the monk" or Marcus Aurelius. Think of the *Mona Lisa*, *Esperienza*, therefore; live it and wear it, attempt immediately, there wherein all things turn, medicine wheel, as sangha:

Spheres eight, nine, ten are physics/metaphysics (stated in XXIV), ethics, and theology respectively per Aristotle and the *Convivio*. Of each intelligence, art, science, method, concept, or *disciplina* is each the source and home. Simple enough.

Meditation or mindfulness is often explained as home: safe, calm, relaxed, capacious, and life-preserving consistency. *Sempre dolce!* And habitation is habit, garment, warm and personal. Per Leonardo: "you who go adorned in the labor of others will not allow me my own?" (His nudes can't be read otherwise.) The self-respect, daring, here is like thunder, Dante's account of Hope as certainty of

abundant future recompense – glory – deserved, right makes might. It's perhaps Leonardo's medical theory, life's potential development, the planet's vegetative soul occurring or not, regarding which he wrote "one's thoughts turn toward Hope" though with stark sight of death and disease's reality plus bad luck.

Look to *Paradiso* XXVII: "what I saw seemed to be a smile the universe had smiled;" or XXIII's "a torch forming a ring that seemed as if a crown, wheeling around her, a revolving garland;" or Beatrice's woven net. What are the physics and metaphysics of Love, Caritas, if not *affinity*, as water for its own flowing, feathers for flight, experience for thirst, rivers to revolve? See its dangers too, in Shelley's monster aching for childhood, Dickenson's "best Giant made," Barrett-Browning's "with darkness and the death-hour rounding it."

Or yet more physical and metaphysical in XXVII, Dante is told "speak plainly there, and do not hide that which I do not hide," while as "our sky flakes frozen vapors downward... triumphant vapors now were flaking up to the Empyrean [sphere ten]." "If – by means of human flesh or portraits – nature or art has fashioned lures to draw the eye so as to grip the mind, all these would seem nothing," Dante says. Leonardo sides more with the glacier – feels it also – its rivers and *solcare*, directly experienced by gravity that it might balance *Natura* with *Necessita*. This is no betrayal, for what is Love, Dante's voice *Amor*, if not real? Light obeys physics and even time gravity as Valery hoped. (Leonardo's gravity directly demands his own garment, defying imagination's authorities, and falling is woven.)

Matelda is, you may know, somewhat my hero and favorite in all this. She connects Dante to Leonardo via Botticelli in the most magical, dance-like, physical way possible; she carries Dante through Lethe out of Purgatorio; she weaves and acts and does like Leah; she resides in *Esperienza* with Beatrice and Fortuna. Her hand – Mona Lisa's – weaves the garment and points us to the bridge. She walks upon the earth with nimble feet, like Shelley's goddess, strong in battle. It's her peace in *doing* I admire

so eagerly: “the Soul selects her own Society” reflecting this, to “close the Valves of her attention.” Or not admire – wish to share, respect, or know I need, are closer? Love in the sense of trust, like, and befriend could be it.

Barrett-Browning calls all humans “possible heroes: every age, heroic in proportions, double-faced,” mentioning Carlyle. Kemp’s book on Dante’s light calls him and Goethe the two most scientific poets. Therefore, what is the living garment? Matelda encourages the child in me rightly, the father of the man, the ideal friend is she. The *primum mobile!* Enclosing all with energy and affinity it moves all, the “turning post” says XXVII, yet is “nowhere but here.” The root of time is there, its leaves here – Terpsichoric, Cusanus’ “learned ignorance.” Its dance is how Matelda’s feet turn in the Windsor drawing, counterpointing Beatrice’s “net” which gathered Dante. Leonardo loved this Love, with open eyes, and in it moves the ML and each of us in chorus, wheel and river. Ariosto – Orlando – Angelica – Rodomonte! A woven *terza*, Crane’s woven bridge a harp of song he faced to Eliot’s waste and cited Emily.

Eternal vortex on all levels, Matelda’s friendship frightens some. They don’t want you weaving your own! O gosh how frightful that humans might do anything or be themselves at all, how unaffordable in war and peace alike. These patricians forget the source of their river and gate and moat no more than XXVII’s ocean of greed, “sewer of blood, sewer of stench.” They people fear’s inertia and think it hope. Let them be; you must be your own hero to *Esperienza*. “Let nowhere be your home, and home to all!”

Pointing is so important with Leonardo, and with all culture (as Beckett said it starting pointing to the sea). Leonardo understood the gist of calculus – successive terms pointing to the undefinable – so picture the paintings that point, in sequence, then add the ML. See, and feel, how it points, too. That finger-touch is very nearly the All.

In cloud-hands proprioception sculpts the felt energy, no superstition required. Thus, I feel the same finger-touch for the ML as for the Sistine's Adam. Herein reside too the ethics of sympathy in sphere nine where angelic intelligence knows no interruption of light per XXIX. Beatrice cites the bane of love of display, a false love, which is Dante's bane and *peccato di superbia* and siren's robes, that invents interruptions not there. Like Clotho's thread the Fates set omens, Ovid's oak of Myrmidons, which desperate we embellish; tread but tread softly. Fix a drawing pencil still and watch the line, Arachne's vision too.

Today was 1138, magnanimous, beneficent beyond imagination: "A Spider sewed at Night," in three threes. Can you feel the physiognomy, immortal survival, moon-arc of white? It was 1869, same year as *War and Peace*. Leonardo too was "himself himself," *in form*. We should not "only hear the first word, love, / And catch up with it any kind of work," earth's oakum fanatics, heeding Aurora. The idea of gnome too in 1138 – and think of Santillana's *physis, physiologos*. In XXIX "form, matter, and their union" arrive together, woven, three arrows from one bowstring. Sense then the Sun Dagger too, per Cajete found again in Chaco Canyon June 1977, Anasazi marker of the solstice.

The first blow struck by *gnosis*, knowledge experienced, is from the eyes – seeing seen – of the beloved lady, standing before her Bright Ray directly. Fixed thus in time we see the turnings of our way. Yet the second, so profound, infinitely multiplying is the smile. From one dimension we understand more – all – experience's granted imagination. The smile is of knowing known, erupting into the capillaries, a flood of feeling – may you find it soon!

Valery knew Poe knew this, the smile of the hidden in plain sight, Of Immortality / His Strategy ~

*Saint John the Baptist* counterposes starkness to fullness surpassing it in *Mona Lisa*. Yet many features align: the eye contact and smile, hand gesture, ringed arms, deep shadow, torso *in torso*. His curls even more corkscrew, clear sculptural attribute of Fortune, Fate, and Isis – foresight – than hers,

yet kin. Most different is lack of garment, atmosphere, and landscape – world even – and his axial tilt. Where *Mona Lisa Esperienza* brings repose, he warns the disaligned.

There is even more of “himself himself inform” from 1138 here, nor Ruff nor Shroud. There is almost no physiognomy – hence precarity – beyond bodily gesture. The only inanimate objects are animal skin and reed cross, yet still a molten core is woven. Reading Harrison informed me of Hart Crane’s “The Bridge,” riposte or query to Eliot, the Quaker Hill of which quotes Emily on the maple tree’s red loom. Bridges weave, do they not, and what, if not the leaf, real and ideal? Therefore he quotes Duncan on dance. His bridge is also lyre.

Ovid’s Scylla, lusting for Minos from her Delphic tower, sunders Nisus’ purple lock in breach of ethos. Love monstrous made by distant eye, she dives to ocean, rent from revenge by father’s talons into a lark, a lock. Minos’ shame hides in labyrinth drawn subtly as Victoria, as “backward and forward rous the dimpl’d tide, / Seeming at once two different ways to glide.” Daedalus flees, yet today I learned he murdered his young nephew made bird, inventor of the compass and saw, in sheer envy. Scylla erred that all who dare divine yet still the goddess aided ingenuity.

In XXIX, should you care to read, we see forerun “the hungry sheep look up, and are not fed, but swoln with wind, and the rank mist they draw, rot inwardly, and foul contagion spread.” We also see another tide of light, energy plus form, which seeks *subsisto* meaning “I stand” whence we consist. How else deem sight a ray, a beam, a bridge? Why Cavalcanti, Averroan, sense universal mind, Saint John’s pain as Isidore’s, the loop of question and bequest by *spiritelle* flown? These offerings *di molte voci*, currents, tides, hexapuntal by ethic, like waters whorl --

Oxytocin can connect a lot of things. Collected rocks from a canyon can be friends, and even talk to us, becoming a place. The “Little Harmonic Labyrinth” is a daily friend. My Norton 2, with Shelley’s “Transformation” – ethos of love and love of power – read in the eighties, penciled filially,

grateful escape from maths, with the *Sartor*, and “Clock o’ Clay,” I physically warm to its pages still. “Of Immortality / His Strategy / Was Physiognomy.”

“Sunday Morning” turns across, across wide waters without sound, the garment of sweet life with fate. Can sweet life repair, heal, heal all, as Dante said? Or, can the set of all healing lived *esperienza* be sweet, remain sweet? Yes it may of certainty. Aurora said “But me your work / is not the best for, -- nor your love the best,” “I too have my vocation... most necessary work / as any.” Ionian Achelous lost his fight with Hercules, willow and river-grass sheltering watery loss, yet married Terpsichore as yesterday I found. The second conquest of soul by love, its smile of knowing known, brings new life of loving loved whose ring and wheel turns all. *Gioconda’s* garment must be felt as wheel, as river, seen to be experienced, a true friend and guide preserved in time.

Why Rastignac care for decimated Goriot, for father fed to child? For love he’d face the city.

We may even find a daily walk-bridge, if rustic and pastoral, to where we meditate. It’s not in 2, but I know the walk to tender visiting “bewareing the mind’s least clutch.” Montaigne affirmed it, Emerson wrote of greeted walk, Tolstoy’s Pierre found it in different ways. The young fate wove, found shore, declined too easy comfort. There is a cry of madness, pain, along the path, Cavalcanti and Orlando knew to say. Even meditation, awareness, hurts but it’s still the right thing to do. Allowing *spiritelle* to do their own work of changes we may rest lucid in sight of the absurd, breath breathing, on every morrow wreathing; in XXIX, “*s’aperse in nuovi amor l’eterno amore.*”

Ironically a garment purple felled Alcides, strongest of all heroes, the centaur’s passing with the winter solstice~

Ornament is for Valery next to the primary power. “All this multiform vitality,” the construction and permutation which make language, music, all life and art, “can be regarded from the standpoint of ornament.” His note thirty years later attaches the core of physics in the expiration of force which

“completes and is also the annulment of a liberty.” This is a quantum mechanics. He uses the word seven times.

Perhaps the source is only found in the playing out. This jibes with Zen in my crude understanding. Canto XXVI still gravitates with me; “Until you have retrieved the power of sight” Dante’s told to “voice aloud all of the teeth by which this love grips you.” He’s forced to improvise! There is physiognomy here too, just as the rivulets of *chemise de La Joconde* furnish forth those of the hills and rivers, the links of her neckline embroidery in eternal golden braid bridging her garment’s span with math from further east.

It is said Cavalcanti was skeptic of love. Understandable; still more Dante’s work to assert it. Leonardo found it in movement I believe, never in stillness except the meandering center at the heart of all movement. He held the sun to be the source of all animate life, hence greater than any person. Dante writes of “enleavening” and loving “every leaf” in XXVI, even comparing changes in language to falling leaves. Therefore in the detailed surface of *La Gioconda* we must see and experience its structures.

Much love is the gift of nature, inclining us to respond, and our attentive reply is, like the heart, never and always the same, a falling leaf. The great error is to think one’s self in charge of this; the second is to think one’s self its pawn. Allowing expanse of grasp of it to form is one work, the apse and mosaic dome we see in Dante and our own cities, but only one of infinitely, miraculously, many requiring a lighter touch.

Ornament last night  
Cold moon last before solstice  
White on snow, gray planks

Finnegans harrowing becomes elate because it's down to earth. And Bach's *Offering* ends on so piercing a question! "Who mourns for Adonais?"

Monarchy means single sovereign but is in reality always mixed.

Right fingers match sleeve  
 Left fingers match their sleeve too  
 See how this unites?

The monarch is always turning on the wheel of fate, is, was, isn't, will be. Jove king of gods is subject to Clotho. Cash is king, but needs the Fed. Property fails without voting. Monarchs must listen, even talk, in *parle*, in *parlement*. And Praetorius' *La, la, la*, just 1:43! Virgil crowns, and mitres, Dante lord of himself after Purgatorio since, as Leonardo wrote, "wisdom is the daughter of experience," in *canon perpetuus*.

Leonardo drafted his "allow me my own" declaration twice:

"Though I may not, like them, be able to quote other authors, I shall rely on that which is much greater and more worthy: on experience, the mistress of their Masters. Why go about puffed and pompous, dressed decorated with [the fruits], not of their labors, but those of others. And they will not allow me my own."

In even Vasari's *Six Poets* of 1544, seen yesterday, Dante's great robe forms a roseate demesne topped by six planetary faces, Cavalcanti sincere but cornered. In *Paradiso XXX's* sphere ten, of origin, creation, and essence, pure light of intellect, love, true good, and happiness beyond all other sweetness, Dante is ruled by Beatrice's supreme smile (depriving him of the use of his mind), the single Point of light enclosing all seeming enclosed by all. Beatrice foretells Henry's crown redeeming Florence's "blind greediness bewitched" even as she damns others, and Dante foresees a herald greater than himself.

Is pride, Dante's last fear, the *peccato* of false rule? His *De Monarchia* on reform, which may need matching, is, though global, built on checked bipartite balance. Machiavel, largely hopeless and

resenting the old – if portfolio'd and backpedal – encouraged young to force fortune, and though apologetically, fits much of the open or secret Prefect in XXX. On what ground could he otherwise walk?

Barrett called it “serious work,” on what Larkin called “serious ground,” and Leonardo, a true poet, agreed, seeing Borgia was no solution. (“Experience is the Angled Road” shows the difficulty, and misrule, but *La Gioconda*, winding as necessity, weathers it full well.)

Equation is the act or process of equating, like the equator, but we should also understand its relationship to equivalencing. This is a math debate, and recent discovery, which Leonardo understood. Are two things equal – identical – or is that too simple? Are they actually more equivalent, in a sense, than equal? It turns out that is a big deal in math circles as Leonardo warned in his “let no one read my works who is not a mathematician.”

“Experience is the Angled Road” is an equivalency, and might even downgrade one’s value of *Esperienza* (depending on one’s view), but this is basic metaphor in both word and image. Garments, for example, are much more than garments in world literature and even in world garments. A painting is much more than a painting, transitive a la Shearman, when worn or inhabited. Trees loom.

If you reduce the *Mona Lisa* to datum, you lose literally everything.

In canto XXX, Paradiso has “two courts” like a hyperbola or mirrored spheres, like hills reflected in water, which Dante sees first as a flowing river of light which changes to a living rose. These structures he imagines so wonderfully are physiognomic in their form, the outer revealing the inner, and require the gradual path of the hundred cantos’ story to perceive. Today the solstice shows another type of mirror, shrouded in snow, does it not? Eliot’s *Sosostris* is a kind of Fortuna; Warburg’s *Atlas* counterposes images without words to explain; Norbert or Leonardo spent four hours at a time merely considering past works. *Inferno* XI names art divine grandchild as Leonardo did.

My trumpet's hard theme ending, source and guide, lend clarity. What canto tells of image changing, which does not change, to those made to be transformed by all? How far this all goes back to January, ending so soon. Aeneas' nameless arrow was overruled.

Yet of all, for me, "*molti morali costumi, como Calunnia*" must tower supreme. Art and poetry, facial expression, all depiction may convey multiple moral costumes *como* Apelles' lost *Calumny*. When Leonardo said he never tired of being useful he said a lot about one's place in time, something of oars in rivers, inhale, exhale.

Head, heart, and hands emerge from the darkness, fog, and fabric of the *Mona Lisa* as physical powers of experience. Contemplation, action, and whole or center form a gravitational triune of imaginative being. Each realm was deeply known and understood by Leonardo in both anatomy and phenomena, drawn with infinite care and patience, in what we might call today cognitive, perceptual, expressive, circulatory, respiratory, manual, and artificing dimensions.

*Paradiso XXXI* features contemplation in the new figure of reverent Bernard's replacing Beatrice who has returned, crowned, to the upper echelons of the heavenly Rose. With an interesting aside on atmospheric perspective, Dante thanks her:

You drew me out from slavery to freedom  
 By all those paths, all those means [*vie, modi*] that were  
 Within your power. Do, in me, preserve  
 Your generosity, so that my soul,  
 Which you have healed, when it is set loose from  
 My body, be a soul that you will welcome.

Contemplation, rumination, titanotheric permutations, can be as bitter as the hive of joy in XXXI is sweet. Such bitterness may even lead to illness and death, as Dante knew. He owed Beatrice, and knew it, but was grateful to be in her debt. Dante called this form of rescue by restored sense of the

possible, a tenth sphere virtue, *fede* or faith (which also means wedding ring). He also asks that its contenting light “see” the storm and tempest of disasters (*procella*) of human life today.

I do believe truly, based on direct experience (see book one chapter one), that the *Mona Lisa* shows me an accurate portrait of contemplation. The eyes, smile, mandala-like landscape, and all-suffusing atmosphere ably lead and guide what I call meditation in my life. They see it, you could say, and show they do. Aware that it is art I feel this mutual awareness nonetheless. Like measures of a dance this leads to other movements and perceptions too, far from inducing stasis, within the image and myself. Perhaps this might be called “an aware settling into conscious present being.” It has elements of fear extinction and formed the main stream of Leonardo’s mode and credo of living in my opinion. At least it’s possible it did!

Hands perform much of our imagination of the world. They bring us food, fight enemies, comfort infants, hew shelter, and mirror what we see and say. Thus active they compare to Matelda, the *vita activa* of imaginative, articulated, aesthetic spirit or being. (Cavalcanti’s complete arrived just yesterday, so leaping over tombstones he will have freer rein next book, but sonnet XXVIII per Calvino is suited here with “spirit” in every line.) Matelda and Lia wreath garlands of flowers to encounter their *spiritelle*, while Rachel and Beatrice are more *contemplativa*. My dad was a scientist but did a lot of woodworking and other craft projects. My paintings, songs, and drawings, as well as gathering twigs and such on walks, have been very helpful for these books. Everyday conversation can suffice.

In book one blog two I mention the “expert evidence” which intimated a path to cogency on this bridge idea. Paradoxically, the paucity of writing anywhere about the bridge and garment provoked an indirect image to appear: the three zones of human being in the *Mona Lisa* i.e. her face, heart, and hands. I leave you to articulate yourself their effect on you visually, for the time allotted to this dream

vision draws to an end. The first engaging element of the painting for me, some twenty years ago, as I wrote previously, being tactile, was the hands.

Certainly the endorphins of manual craft help predictive regulation shape physical reality. They transport the spirits of hope, a future's image, in bodily form. Therefore the bold confidence of Matelda crosses rivers impassable by other means. I seek this, admire it, and find it abundant in Leonardo. (He called it his nature not to get tired of being useful.) Leonardo did not back Savonarola, a kind of work-smasher, because negation alone is not life, neither learning, nor sweet, nor sufficient.

*Paradiso* XXXII is kind of like a living dome of light, a perfect city of symmetry, of which Dante writes

Infinite order rules in this domain.  
Mere accident [*casual punto*] can no more enter in  
Than hunger can, or thirst, or grief, or pain.

Such order may be almost furthest from daily activity, but is it ever absent?

Heart function captures well the swirling together of contraries. Leonardo drew great images of hearts and even built a functioning heart valve. Heart makes a proper source of Caritas, sometimes called love and sometimes charity showing its mixed form of purity. In *Paradiso* XXXIII.91 Dante seems (*credo*) to see the "universal form" or "final all-healing revelation" (*l'ultima salute*) of three united circles as a knot binding all being together: "*La forma universal di questo nodo.*"

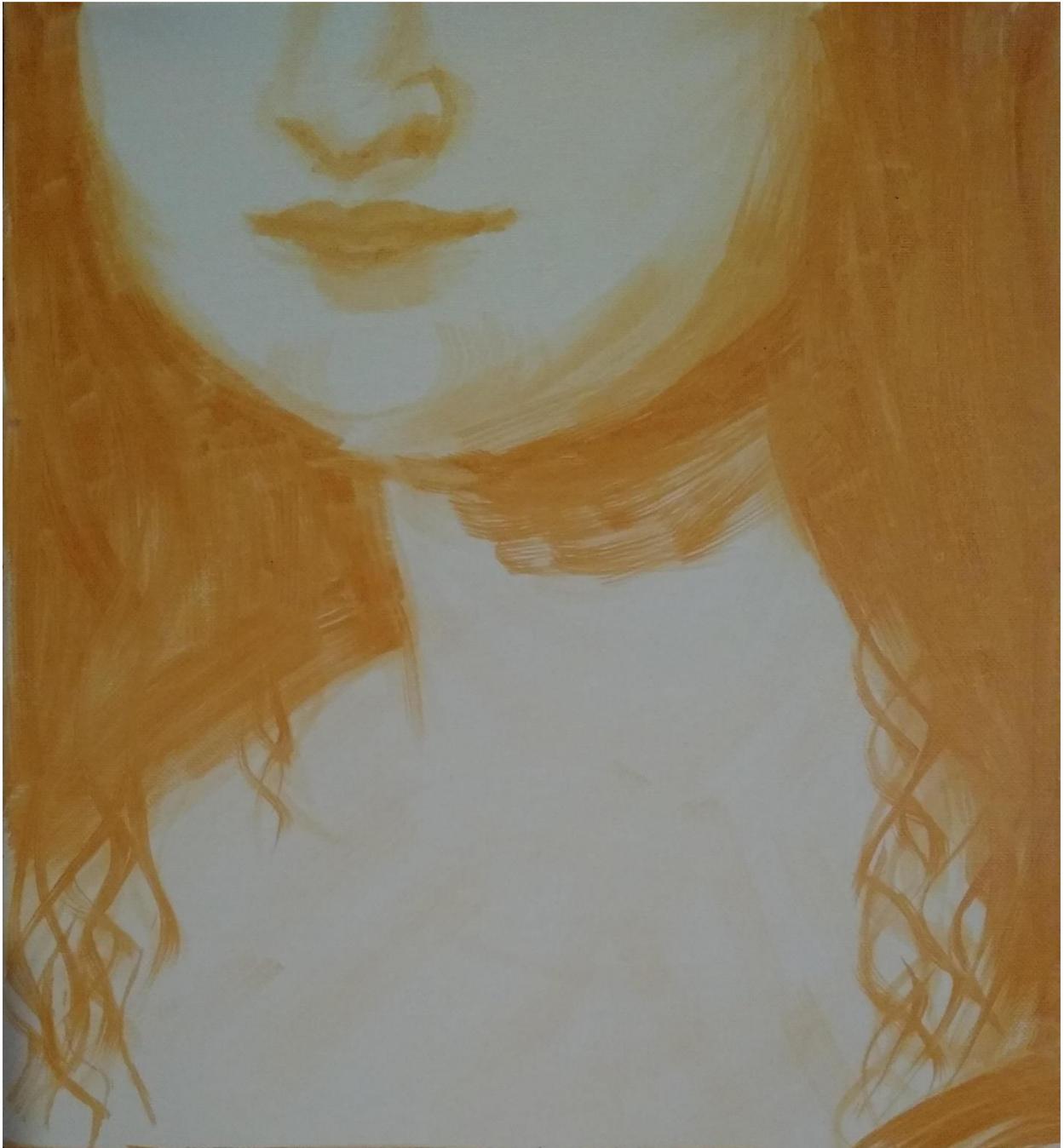
Many elements of Canto XXXIII remind me of Leonardo. "Our human speech is dark before the vision;" "as one who sees in dreams;" "substance, accident, [*sustanze e accidenti*] and their relation so fused;" "the more I looked, the more unchanging semblance / appeared to change with every change in me." Translation aside, these also resound: "in Itself of Its own coloration... painted with humanity's

image;" "mine were not the wings for such a flight;" "as in a wheel whose movement nothing jars." Yet perhaps Leonardo never knew or felt such associations.

The origin, source, or creative power of Caritas is enigmatic because it derives in part from itself. This axiom should not plague us overmuch because it is an axiom. Erasmus, who I've mentioned but not studied, saw a similar kind of mutual creation of creation. One can easily find such phenomena in nature, as I happened upon these last few days by the river here at the place I like to walk. Eagles have been congregating there this week by open water to fish, dozens soaring together in exuberant display. It's rejuvenating to see them take flight from the great trees, which will return to leaf after the equinox, with bridge and sky in the background. Quanta's summary video of 2021 physics discoveries shows two great spheres ghostly mirrored across the galaxy's Sagittarian center, somewhat like a heart.

Returning to book one blog three I found one of my favorite Leonardo images of all, and most affecting, his *Map of Imola*. He paced it out himself on foot and mapped it in a circle, river and city made one in sight, surpassing for me the Vitruvian which may be seen too often. Trees too have great hearts, lacking nothing.

Graphic 12



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Appendix A – Dante quotations

[https://en.wikiquote.org/wiki/Dante\\_Alighieri](https://en.wikiquote.org/wiki/Dante_Alighieri)

<https://digitaldante.columbia.edu/>

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Appendix B – Leonardo quotations

[https://en.wikiquote.org/wiki/Leonardo\\_da\\_Vinci](https://en.wikiquote.org/wiki/Leonardo_da_Vinci)

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Appendix C – Other quotations

[https://en.wikiquote.org/wiki/Niccol%C3%B2\\_Machiavelli](https://en.wikiquote.org/wiki/Niccol%C3%B2_Machiavelli)

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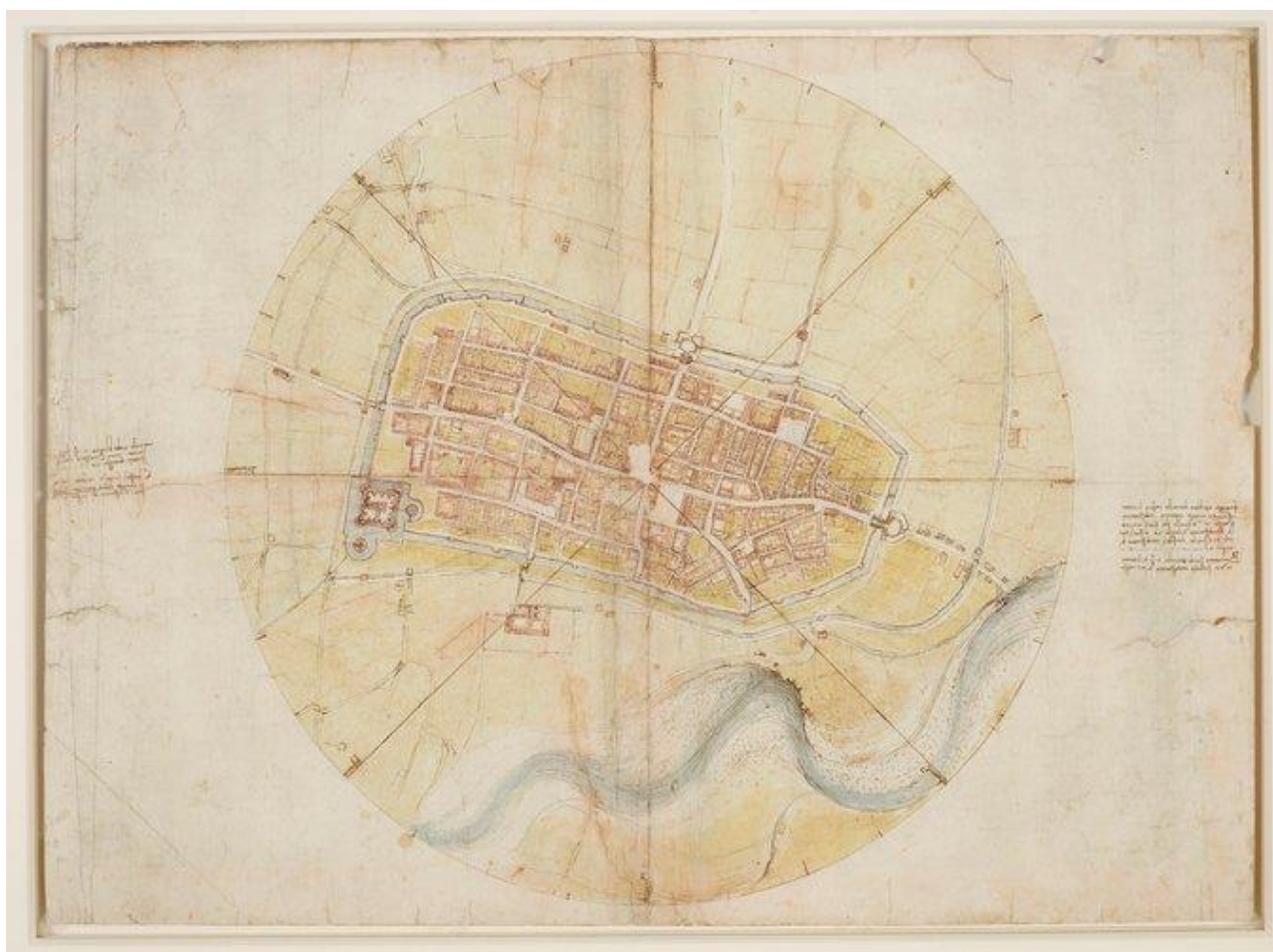
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# River and Bridge

Leonardo from Dante to Machiavelli



by Max Herman

*Trasumanar significar per verba*

*Non si poria, pero l'esempio basti*

## Foreword

No way can I cover all of politics in one short book. I haven't the knowledge, or skill, even if such a feat were possible. This is more like a walk through a few of the neighborhoods, if you will, that I find interesting or even just within walking distance, pointing out this that or the other in some sort of way.

Politics are a necessary but not sufficient condition of the sustainability of life on earth. Beyond politics, the sciences and arts are also necessary. What politics best support the arts and sciences of sustainability? What art and science best support the politics?

This book will compare voices from Dante, Machiavelli, and Leonardo. I, the author, will admittedly favor the voice I feel to be the most neglected: *Esperienza*. This does include elements of reality, but I acknowledge that in some respects it is not possible to distinguish the attempt from the realm of fiction. Therefore I embrace that realm, with all of its liberties and all of its constraints.

As with the first two books of this trilogy, this one is based on my web logs at [blog address]. In addition, I recommend before reading that you try the quick meditation exercise at [seethebridge.org](http://seethebridge.org) which for me began the entire process of looking at Leonardo in depth.

Yet most importantly, in the words of Abraham Lincoln, possibly in all caps, "let us have faith that right makes might, and in that faith, let us to the end, dare to do our duty as we understand it."

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# THE MINDFUL MONA LISA: RIVER AND BRIDGE, OR, THE POLITICS OF SUSTAINABILITY

By Max Herman  
Thursday, 03/03/2022



What does the bridge in the *Mona Lisa* mean?

This simple question popped into my head on an airplane flight in mid-2019 and has interested me ever since.

Most Leonardo scholarship addresses the bridge, if at all, only in asking whether it depicts a real bridge somewhere

in Tuscany. A few scholars over the last decade ([Zwijnenberg](#) 2012/2020, [Isaacson](#) 2017, [Geddes](#) 2020) have mentioned the bridge as a “connector” of the background, representing nature or the primeval past, to the human or present realm of the sitter.

Yet the connection I sensed is that the bridge is also linked to the [garment](#) both visually and thematically. Both represent technology, engineering, and the “built environment” humans create and traverse as well as inhabit. This dual metaphor is further juxtaposed to the allegory of the sitter as *Esperienza*, a word meaning both “[experience](#)” and “experiment,” who Leonardo personified as the “*maestra*” (teacher, guide) and “common mother of all the sciences and arts.”

As Leonardo [wrote](#), “Painting is poetry which is seen and not heard, and poetry is a painting which is heard but not seen.” Hence the interconnections between [Dante](#) and Leonardo, which were so instrumental to integrating literature, visual art, and the sciences throughout the Italian Renaissance, demonstrate the deep roots and essential role of today's “[environmental humanities](#).” Both Leonardo and Dante were concerned, ultimately, with sustainability: of social relations, political community, the ethical practice of art and science, and the relationship of humanity to the natural world.

Today sustainability in diverse forms is perhaps our most urgent challenge, linking it to the political realm with an intensity that will profoundly shape the 21<sup>st</sup> century.

In 2022 this blog will explore some political ideas and debates surrounding Leonardo’s contemporary and sometime colleague, Niccolò [Machiavelli](#) (especially his concept of “[fortune](#)” or history as a [river](#)), and their relevance for society’s attempts to achieve a positive, constructive, and resilient politics of sustainability.

Since Dante patterned multiple works on the ten [celestial spheres](#), each of which represented a field of knowledge (the seven [Liberal Arts](#), plus physics/metaphysics, ethics, and theology), each blog will feature one “sphere” as a metaphorical prompt or topic of comparison.

The first sphere is the moon, representing for Aristotle the study of grammar: it is something like knowledge’s starting point. (In Leonardo’s visual language, it might compare to [drawing](#).) The moon also symbolizes contemplation and [meditation](#) in many traditions, which may serve as a basic starting point or grammar for the politics of [sustainability](#): what is the role of meditation in brain health, and brain health in the prosocial behaviors undergirding sociality, dialogue, and reconciliation? How might mindfulness and contemplation relate to the concept of *Esperienza*, and technology, and the *Mona Lisa*?

In contrast to mindful contemplation, Machiavelli’s *Il Principe* ([The Prince](#)) seems to favor strategic action and relegates meditation at times to wishful or neglectful reverie. Just from the standpoint of stress-management alone his dictum “it is better to be feared than loved” would indicate a risk of chronic stress and may create barriers to sustainable wellbeing of both leaders and communities. Dante might have characterized this as “the haste that robs all actions of their dignity,” or as Leonardo wrote, “they who think little, err much.”

Contemplation in art and science may seem an obscure luxury in times such as ours, and may not seem to offer direct solutions to crises such as the horrifying recent collapse of European peace. Yet contemplation has always been a source of life and breath to both conscience and creativity, and the health of these may well determine how resilient our most cherished values will prove to be during a century of deep uncertainty, constant stress, and sometimes catastrophic change.

Next blog: sustainability and modern communication

Chapter one, chapter one today  
 While imagination isn't two  
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 What experience will have to say  
 Sad constraint, the always bitter way  
 Will also bind its force and so accrue  
 A sorrowful and tragic point of view  
 While gods to playthings fly us to their play.  
 The quiet disc of white and planetshine  
 Admonishes a rest and crescent turn  
 Rotating orb once thought a watery globe.  
 How can a resting heart unsleeping mine  
 Breath sacred from a distant helical burn  
 Which wears our dreams and pain a royal robe?

A major new war just started, March again a month of war. Small waves building into larger ones of who knows what. I return to my same three songs with one new one. Strangely all this may have started last war, driving, passenger, on Lake Street over the river, west to east, who knows why. There was a child there too in a stroller, black haired, not knowing there was a war. I said to myself in rather a desperate voice "great river bless all humankind, bless the strong and beating heart of peace." Flowing the heart of peace you could say, is what I asked for. So easily I forget.

This final book I planned for politics of poetry not war, song not death, peace not fire of cannon and siege with real misery, real faces, real houses. One rather not do anything, sleep, not dream, but may we? May *aphelocoma woodhouseii*? The veins and roots, trees, eyes, rivers aren't going anywhere. And I am so, so far from everything. May I be like water, may I hear, may I see, may I even speak. I don't know what to do and dare not let anger guide me. What then? The images escape me.

Earth is first, a second earth lit by our own, appearing water but only from the light. Faint as it is much offers itself to us. Even the mighty tides are ruled by it!

A young and early father, Hamilton, wrote in the first Paper which founded my country, such as it was, we know from *experience* our nation stands in need: from experience, the present.

Does this coincidence standing alone mean that the *Mona Lisa* relates to Machiavelli, may even be said to rule over *Il Principe*? Very little could be more tenuous than to say so. Still, that is my claim: *Esperienza* should be the guide and *maestra* of all the sciences and arts, and the *Mona Lisa* is her portrait. This carries implications. *Il Principe* is also chock full of references to experience as the true source of political wisdom. Machiavelli influenced Bacon, Bacon Hume, and Hume Hamilton, in a direct line. The key concept is that of checks and balances: modern philosophy, credited to Machiavelli, sets ideals and the ideal to the side, suspending them in a sense. The return is to ancient Rome, of administration, power, and getting results. Humans are deemed fractious and flawed, and the best stability is not to perfect but to balance them out.

Yet as an idealist myself, claiming also full realism and practicality, I wish to critique Machiavelli and show his place is second not first. Leonardo's *Esperienza* of Beatrice, Fortuna, Matelda, and more is first. *Il Principe*, having thrown off medieval masters of ethics, the true and good in politics, must honor the true *maestra*. More than honor: to love, and emulate, and become is what's required. I champion who Leonardo did, and Dante did, opposing *Il Principe*. May the chips fall where they may, at least for this book.

Let me not rant on and on, but mention the first path of Buddhism's eightfold: right view. This seems to imply "perspective," or "big picture." It warns against either indifference or perfectionism. It tells us to start not at the particulars seeking certainty, but take a large view of all. What is the right view then? Sometimes might makes right. Sometimes right makes might. Which is evil? Neither – wrong question. Yet right view tells us: might makes right is lower and lesser, right makes might is higher and greater.

The First Noble Truth, of four, akin to path, suffering or “*dukkha*,” means that politics is suffering. There is no easy simple escape so forget that. Hamlet is the pattern, the mirror to Machiavelli’s mirror, the Prince of Denmark, *non*?

“I am more antique Roman than a Dane.”

“Absent thee from felicity a while, and in this harsh world draw thy breath in pain to tell my story.”

“Nay, I know not seems.”

“These are actions that a man might play.”

“But the trappings and the suits of woe.”

I know Hamlet, the play, rather well, having read it daily during a most despairing time and yet one most loyal to poetry and writing, when I was about twenty. Exactly actually. I was hurting somewhat for lack of literature, lack of a story, lack of a heritage you might say, and lack of a culture. I had dropped out of a very difficult good college to go to an easier lesser one at which I might write more. Nonsense galore to say the least; but that same year I learned to meditate in corpse pose (self-discovered), not drink, take walks, care about Auden, care about Aeschylus, leaves in fall and frozen lakes in winter. I read the tragedy of Machiavelli prince of Florence through this lens, then. Who more duplicitous than the uncle, who more verbose than Ophelia’s father? What greater experiment than the murder of Gonzago? What falser friends than Rosencrantz and Guildenstern, Guildenstern and gentle Rosencrantz? Realpolitik and Fortinbras! Storm in the state! Yet differences too, for sure. Policy and tactics yes, but the imagination and conscience too; a self greater than self. Claudius drowns the voice of conscience for his own gain, but being mere Envy he brings not life but death to Virtue. Envy rides on death, never tiring of destruction.

*Invidia*, the unseeing, may be found hoisting mortal Death in March's image, with Ingratitude, hoping to burn the tree of our life to nothingness. Who will champion the tree?

"Breathe into irritants," I was lately taught. I will try, my heart will try, and trying becoming if fortune and virtue warrant.

Shih Ho speaks of biting through – decision – and Tiger of yin, the justice of mercy. May I show myself merciful justice.

"The ends may justify the means, but if the means are not sustainable the ends are not."

Doubt truth to be a liar, but never doubt I love!

Machiavelli absolutely influenced Shakespeare, and if not Machiavelli then Machiavelli by osmosis. How could we say Machiavelli was the first Machiavel? Just think of any other violent deceiver craving power and praise. There had been many such before 1469. Many counselors have been like Polonius in scene one, full of words trying to know but making no sense and losing their train of thought most absurdly. Who knows what role he played in sanctifying, for his own ease, the aftermath of the crime. Even he knows it: we old people claim to be too smart. Then he races to the king. Absurd.

This morning by pure coincidence I heard a blurb on the radio from Houston's "Engines of Ingenuity" series, on how Liszt wrote a work with Petrarch's sonnet "I cannot make war, but know not peace." Is this not Hamlet too? Is not the heart an engine, bringing oxygen to be burnt and driven by that heat, the wheel of all? And all turning is torsion.

In Slavonic, the word for bridge and mast is one: *mostu*.

Winter still prevails here, and I visit the Mississippi as before, as even in the very first chapter of last year. Winter and earth prevail.

The first commandment of the oldest testament is not unlike Hamlet's father's words: "hear me." It is somewhat the voice of conscience, of what cannot be seen, that which can only be known actively i.e. in experience, imagined yet real. They are not unrelated. Nor is the first amendment to the Constitution of the United States of America, which clarifies how essential freedom is for imaginative expression. (It covers paintings too by the way.)

And why all this framing of Republics, of laws and rights? Why not absolute rule by whim of prince? Because sustainability matters, and persons are prone to great error. Alone is weaker, and more brief. Still sadly we forget that right is never license to neglect.

As Meliboeus sings:

"Tityrus, there you lie in the beech-tree shade,  
Brooding over your music for the Muse,  
While we must leave our native place, our homes,  
The fields we love, and go elsewhere; meanwhile,  
You teach the woods to echo 'Amaryllis.'"

Yet, despite all the mountains and valleys of proof Calvino's "Lightness" reminds me how important is Simplicity. My thoughts get too easily clouded with heavy masses of plans, ideas, and examples. Those too have a part in the play. However simplicity does too. Notice how Polonius ends his big speeches with very short summations, spent. And the main point of this book is simply to situate the *Mona Lisa* in front of us in a world formed largely by Machiavelli, while the blood of Machiavelli as it were flows freely in our veins, arteries, and capillaries.

As shown in blog one last year, a kind of I Ching of recursion and book of changes, Leonardo knew Machiavelli perhaps very well, during a perhaps formative time both working for Borgia. Did Leonardo portrait Machiavelli in any way? Some say Machiavel copied his river idea from Leonardo.

How much more did he copy? They might even have been spies together, observing Borgia for Florence. They were both certainly military and diplomatic contractors of very highest professional skill and rank.

Simplify it this way, as an experiment in thought: is *La Gioconda* a mirror for princes for Machiavelli's mirror for princes, that is, for us wrangling gangsters living so immersed in *Il Principe's* future, called the modern era? We know Leonardo saw a great deal of his future, that is, us today. Could he have addressed us? Impossible. We didn't exist yet, and no human can imagine there will be a future much less ask questions about it much less questions about its questions. Or is it?

Maybe Leonardo knew there would be hotels, and someone would be sitting in one, with harpsichord music, bad – terrible – coffee, and a pencil, in a blue shirt, looking at a terrible copy of his portrait of Lisa Gherardini, which he denied his customer for precisely this event: the future fame of the vulgar, *de vulgari eloquentia*, just as Virgilio taunted Dante with in Dante's first eclogue.

Leonardo saw much of the future, because like the moon he reflected it to us, holding it like our hearts in his hand, Amor, until it arrived for real. He wrote it and drew it.

Recently I learned that "to log in" to a computer is from "log-book," in which ships wrote down how many knots unrolled from a rope wrapped around a log to see how fast they were going. For example, five, ten, or twenty knots. But the word *logos* (for word) is derived from "an item in a list." Just think how different a solitary object is from an item in a list! And lists are always having items added and scratched off. Which came first, the list or the item? There is noticing and then no longer noticing, or not noticing at all. Shakespeare wrote a lot about noting as writing, and as not-a-thing; and David Bohm called dialogue, explaining it, not as between two like ping-pong but through, circulating, flowing of ideas and words as with a diameter perhaps. You could have dialogue of one, two, or twenty-two.

So what is this mirror of the Prince? It was a genre back then, circa fifteen-hundred, self-help how to succeed for executives. A bit of Polonius to be sure. They say Machiavel transformed and modernized the genre for brute efficiency, relegating the Good to an appearance or suit of clothing, cloth. The mirror is a guide to rule, but perhaps flattery too. Machiavelli was a self-brander and technocrat in my opinion, an author of the second tier if an artist at all. Such is my thesis. I shall test it!

The *Mona Lisa* is a mirror too, for the artists and scientists of which we are all one. Kind of like old-fashioned dancing reels, people pass by the painting as if a counter-partner. Yet if Machiavel's book could learn from the painting, sitting before it like Napoleon in his bedroom, could it learn, and learn respect?

*Inferno*, canto I, finds Dante in a dark forest. (We are to read this as death by despair.) To exit he must use imagination, not just his wishes. Words and walking are his guide, in the form of a writer he trusted to walk with him through hell. A walk or dance for the spirit, the set of all one's *spiritelles*, is what it is, musical or not.

Yet I drift.

Maybe Leonardo knew we, I, would read *Il Principe* or its kin and what we would become. With that river, that experience, and that Fortuna he provided a new mirror. He replied to Machiavelli (despite being 17 years older) just as he replied to Dante being 187 years younger.

Perhaps I or someone shall find strong evidence of the sort Leonardo studied his whole adult life to hide for survival, *cor veste textit*, and perhaps not. Weston's *Ritual to Romance* starts by saying the proof is in the pudding, not the proof. Either way, Leonardo wrote about the hybris of power in the face of Nature, and this is a counterpoint, inarguably, to Machiavel.

Maybe the key image of *Purgatorio* I pertains: the river-grass. A blessing if you will in garment form, a sacramental belt of sorts. Maybe it doesn't, but all three Florentines told of rivers and fortune, the arts and sciences, and *esperienza*. Machiavelli has been long praised by those who seek to justify brute force and brazen fraud, a breed of necessity, even as they tout their own great worth. Tyrants and thugs follow his instructions precisely, as seen this very day of *Principe V*.

Judge for yourself, but one great flaw pointed out in Machiavelli is escalation, the "arms race" of never-ending domination, insurgency, revenge, and hatred which devastates the land. It is the antipode of sustainable polity. It is debt, karma, truth, fact, indeed necessity infinitely deferred.

Traveling today I am far from my first river, the Mississippi or "Great River" in Ojibwe. I am near a tributary however and try to visit it daily as I do the Mississippi at home. My birth city of Minneapolis, Minnesota, city and land of waters, has no ocean or mountains but cathects its rivers and lakes. Such as they were, such as they would become. One can hear the millstones turned by the current and traverse by canoe or girder. Eagles fly in the river gorge among the bridges. One bridge is called plainly "the Stone Arch Bridge," abutting the Falls of Saint Anthony. Eliot calls the river itself a god, one not unlike Achelous.

A prince who will not learn, falls.

This morning after yesterday's blizzard here I saw a plane far off flying away into the distance, high up, out my window, white into a cloudless sky. It moved slowly upward like a snowflake, a gift of winter. Dante's principle for the moon may be official and formal somewhere but I am thinking of it as reflection, the second light so to say, a kind of yin for the imaginative body in its vegetative sense. Maybe this is a kind of winter too? There are still a few days left.

Even more simply than before, I hope to ask whether Machiavelli's view of rivers, Fortune, *virtu*, and *esperienza* may relate to Leonardo's and Dante's, how the three may inter-relate, and how the river

and bridge might be illuminated, or reflect something thereby, maybe like today's full moon. You who have read book one know I think the bridge in *La Joconde* is a metaphor, matching the garment, which Lisa points us to, being an allegory of *Esperienza* personified. These are my innovations, as it were, my novelties, on which I hope in full disclosure to hang what's left of my tattered hat. Can Machiavelli prove this case at all, this amateur case, mine, who I address in my *canzone*?

That is one question. Another is: If Machiavelli improperly, ignobly ignores the bridge and garment does this impugn his politics? Can the images of Leonardo and the words of Dante, painter and *autore*, and the words of Leonardo and the images of Dante, *altore* and painter, reflect somehow as in relief what Machiavelli lacks, his flaws? Or maybe even more basically and earth-like, can poetry and painting tell us anything about politics, especially those of sustainability and the green age we mostly hope can be achieved? Call it a triple *Paragone*: not which is better, poetry or painting, but which is better, poetry and painting or politics?

Therefore, I apologize if this is all too jumbled. Perhaps the image of three fish in a koi pond might help, a cedar nearby or a mountain in the distance, tea, a pen and ink or brush, or just nothing and the birds, a simple right view, suffering's mirror.

It is somewhat difficult to talk about Machiavelli, which is part of his brand magic and mechanics if not the primary heart. Before neurons evolved imaging and information were carried out by the body, by anatomy and the blood, in much the way brains do. Hence there is more to the Buddhist idea than expected that the being, or spirit, the you or the me, inhabits the heart more than the brain alone. Machiavelli is about establishing a professional – himself – and mainly in service of that professional a profession. It's exactly Freud and more or less exactly Marx, thus un-Hippocratic. How many struggling leaders or politicians have muttered "I need a Machiavelli"? His mystique still lingers, overall more

miasmatic than salubrious. (In Greek tragedy the miasma or source of infection was the hybris of the tyrant.)

This book will be short and therefore lesser in bulk than what the average library shelf holds regarding Machiavelli. This is right and proper. Its focus will be on how Machiavelli's thought, in the broad sense, is less advantageous to sustainability in politics (and elsewhere) than Leonardo's thought. It's a bit of a contest or test, like an experiment with a hypothesis, data, and conclusion.

Escalation has been mentioned, but other weaknesses of note in Machiavelli's basic method or grammar include omission, tautology, flattery, lies, inconsistency, completeness (in the Gödelian sense), and, as mentioned, self-interest. He also supplies false definitions, false literary lightness, false simplicity, arbitrariness or false expediency, all from a spy's imagination fixed on the allure of murder and deceit. This list will change and morph through the spheres of the book, as may my thoughts on any specific case of error or flaw I may assert.

Many people, though not you dear reader, may only know the following about Machiavel: it is better to be feared than loved; the ends justify the means; Fortune is a woman who must be beaten and bullied. Even I, the supposed author or *altore*, know much less than nearly or literally every other author who claims to describe our common subject. Most people care even less, which is also part of the brand.

Nevertheless, happy equinox *primavera del nord*.

The exact moment of equinox, in thirty minutes, means "equal night" compared to the day. Maybe it can echo meditation if we want, or the roughly equal number of inhalations and exhalations of every life. Somehow it could show stability, or sustainability rather, its moving nature, like that of meditation, or explain why I added a fourth writing-song for dodging political knots: Bach's *Two-Part*

*Invention in F Major*. It's so succinct I forget how happy it makes me, and I want to listen to it more than once per day but that is *verboten*. Enough maybes about today.

At the river no ice is left except along the shorelines, and some shallow lagoons; it's breaking off in chunks. The preponderance of mud suggests the old saying "my avocation and my vocation." One wants to oppose war, and Leonardo thought very little of its gain despite being tasked with engineering it for the Medici princes. When is war hybris, and when is it survival? What virtue – *coscienza*, not *virtu* which is capability – can choose, or even try to choose? It too may be like a river, this *coscienza*, offspring of meditation. A healthy brain and heart will choose better than ill ones.

Possibly I could oppose, in my thoughts only, the present war with a simple letter of the alphabet. I was thinking of one letter, a sharp one, but someone I asked suggested another which I think is better: M, for peace. It still feels hybristic. Maybe everyone needs to think of their own letter.

Coincidentally Giovanni del Virgilio, the academic who tried to convince Dante to stop writing in Italian (which people could speak) and switch to Latin – halfway through the *Commedia* no less – because only swine read in Italian, had as nickname "the Grammarian." He asked this, and offered tenure in exchange, in a Latin eclogue flattering Dante as the victorious *principe* who with a lyre could banish war (if he accepted the job!). Dante declined. In *Paradiso* I, written perhaps almost simultaneously, we may hear a kind of answer:

Trasumanar significar per verba  
Non si poria, pero l'esempio basti  
A cui esperienza grazia serba.

Fifteen words I've memorized describe change by *esperienza*.

It's something, then, to meditate upon: painting, poetry, and politics. I wish it were a cure for war, to simply highlight the letter M. Theoretically it could be, yet the premise is also absurd. As for

absurdity, why does Hamilton write in the opposite Paper of the first, “the pursuit of what they are not likely to obtain, but from time and experience,” echoing in that Collection’s last paragraph the word from its first sentence, after quoting Hume using the same word (and “experiment,” the other half of *esperienza*) in the same last paragraph? It may well be that the government of republics, and even monarchies, which Hume describes depends essentially – at its very foundation – upon experience in the past, present, and future tense alike. Indubitably the word is used by Hamilton.

Experience involves all faculties, all nuances of Reason, as illustrated in Prince Hamlet. He wants proof, via the play within the play, that Claudius lies. He gets it, and even then conscience guides his actions. (Samuel Johnson doesn’t seem to understand this.) Being “rathe to destroy,” as someone said, is not *quietus*. The conscience of the prince or monarch weaves experience past, present, and future into the royal garment. Patience and meditation are not improper or weak but in fact provide the fabric. So I will try to remember this, within the book.

This chapter’s image of the tree is helpful. Leonardo saw into the attributes of things, never single meanings only. Trees represent the organic or vegetative life of persons, institutions, and nature as well as the imaginative. They can become barren and can be restored. They have roots, leaves, and branches. One could find worse symbols of sustainability and nearly every culture has a tree in its art forms. Trees were very important to Dante, and they appear though quietly in Leonardo’s first painting the *Annunciation*.

Conflict per se is addressed historically in sphere five, therefore I will let it fade here somewhat except to say that meditation’s merit is not nullified in any way by the existence of conflict. Rather, it could be considered the foundation and tree of all life, its quiet, patient, and peaceful center, *La Vita Nuova*.

An artist knows imagination cannot be forced, the muse coerced, despite what hybris (costume of invidious envy) may seduce. Desperation however easily warps this truth, as do invidious, blind panic, vice, greed, malice, stealth, and self-absorption, surprisingly banal. Can you force a tree to grow? Keats said a poem should come as naturally as leaves to a tree or better not at all.

A bit of provenance: In January 2018 my book club, not I, chose Calvino's *If on a winter's night a traveler*. I acquired *Six Memos* too and liked it greatly, having wanted to resume writing for some time. I thanked Calvino as Dante Virgil. There was an art festival that June, before the solstice, in a library. I designed a submission quoting Calvino: each person is an encyclopedia. The *desegno* combined the Pelli library here, shaped like a book, with meditation brain scans, snippets of *Six Memos*, and images of maps, brains, and astronomy from the library, to project on the library wall, plus little pieces of paper to read or write on, with questions for conversation, called *Solstizio*. It was equinoctially rejected.

That November I attended a meditation conference in a hotel which had a lot of Native American art and learned the circle image is often a medicine wheel. In college I had speculated tragedy was medical theory, and the conference said Buddhism was too. I looked up medicine wheel and found the NIH page about them and the Four Directions, and the accompanying 36-item list of stone wheel elements (which includes "Grandmother Moon – guides dreams and visions"). I've studied and asked somewhat beyond this (Cajete, Nelson, Northrup) but need to study and ask much more. There's a very good mosaic in the airport.

Calvino does not talk about, or look at, Machiavelli in *Six Memos*, but he speaks of Medusa and petrification, the petrification of the whole world he saw in the fifties. He does not speak of Mussolini or Marx though of course Dante did for his day. Cavalcanti did not. If Leonardo did, he did so indirectly.

In the Sun Dagger of Chaco Canyon, is there not a shadow that we see before us, a bare bodkin?

Perhaps the moon, in its lesser light, unites things deeply by allowing us to see the planets. Calvino in *Six Memos* considered devoting a whole memo to the moon (opting to leave it to Leopardi) which at least ties memos to spheres. When the local art festival chose the mill district as a topic, in 2019, I added a stone circle to *Solstizio*. Now all I need is the grist!

Sometimes imagination works best in less light, less raw data and more permutation, by a grammar of what reflects. Dante mentions finding value in what another has, does, or achieves, in the example of Statius appreciating the poetry of another. Failure to do this is the great failure, and it is a failure of the imagination. The late bell hooks mentions this as a culture of greed. Why would we view the wellbeing of another person or being as a loss to ourselves, not a gain? There is a transmutation here without which any definition – any – of sustainability cannot be. It makes me wonder if Hazel Scott ever played the *Two-Part Invention in F Major*.

Federalist No. 1 gets at these ideas fairly clearly. Publius asks “whether societies of [people] are really capable or not of establishing good government from reflection and choice, or whether they are forever destined to depend for their political constitutions on accident and force.” Then the idea of “UNION,” the big picture, is invoked. By reflection, it asks, see the big picture. It also warns “A torrent of angry and malignant passions will be let loose.” Beware of those “commencing demagogues, and ending tyrants.”

*Paradiso* I suggests a great fabric of movement, like an ocean, comprising all being:

This impulse carries fire to the moon;  
This is the motive force in mortal creatures;  
This binds the earth together, makes it one.

The *Encheridion* extols that calm which knows “Some things in the world are up to us, while others are not,” and those which are are mainly imaginative: “judgment, motivation, desire, and

aversion.” Ask yourself: are technology, power, violence, and deception our greatest need, their lack tainting all hope of sustainability? Nature, balance, wellbeing, and truth may beg to differ!

Leonardo has been described as a “thinker in fragments” by one of Calvino’s greatest mentors, an American historian of science. As my trilogy proceeds I seem to see him more as a writer in fragments, a painter in fragments, who saw and thought in unities. These virtues, moreover, go hand in hand in symmetry of chiral kind.

One such fragment Leonardo wrote is “Algebra compares unlike things.” The minimalist or technical view of Leonardo and his work, a view I do not share, would have you believe he was trying to remind either us or himself what algebra is. To me his writing is sager. It asks, “What is the second meaning of this? The third?” The hope is much higher than mere report.

In my own limited realm of activity I have found meditation to be both an experience and an experiment. It isn’t a theory or datum object nor is it predictable, much less every time. In fact one might well say it is the *new* in *La Vita Nuova*. I get a similar feeling from Eclogue I, where Meliboeus has lost his goats, oak struck by lightning in ill omen, while Tityrus has returned from long wandering. Their poem is temporary and new but also very lasting, with detail of both their meal and evening light.

Leonardo unites Lisa’s garment with geology, all agree. Why not the bridge’s woven geology too, rooted to earth? Why not the written person *Esperienza* with the image of the beloved? Percy Shelley, in one of the most universal defenses of poetry, called it that which sees the similarities of things and unites them. To me this capability, which Keats once called negative, is perhaps not meditation per se but relies on it, is made from it, and reflects it. (See *Politics, Language, and Time*.)

Maybe there is no bridge at all in Machiavelli. So far I haven’t found one, despite clear evidence of garment and experience. I seem to see in the *Annunciation* a hand gesture saying “nature takes flight, and is more than words or books, see now.” Linearity is there, but behind and to the side.

Is Machiavelli claiming there is no bridge, period?

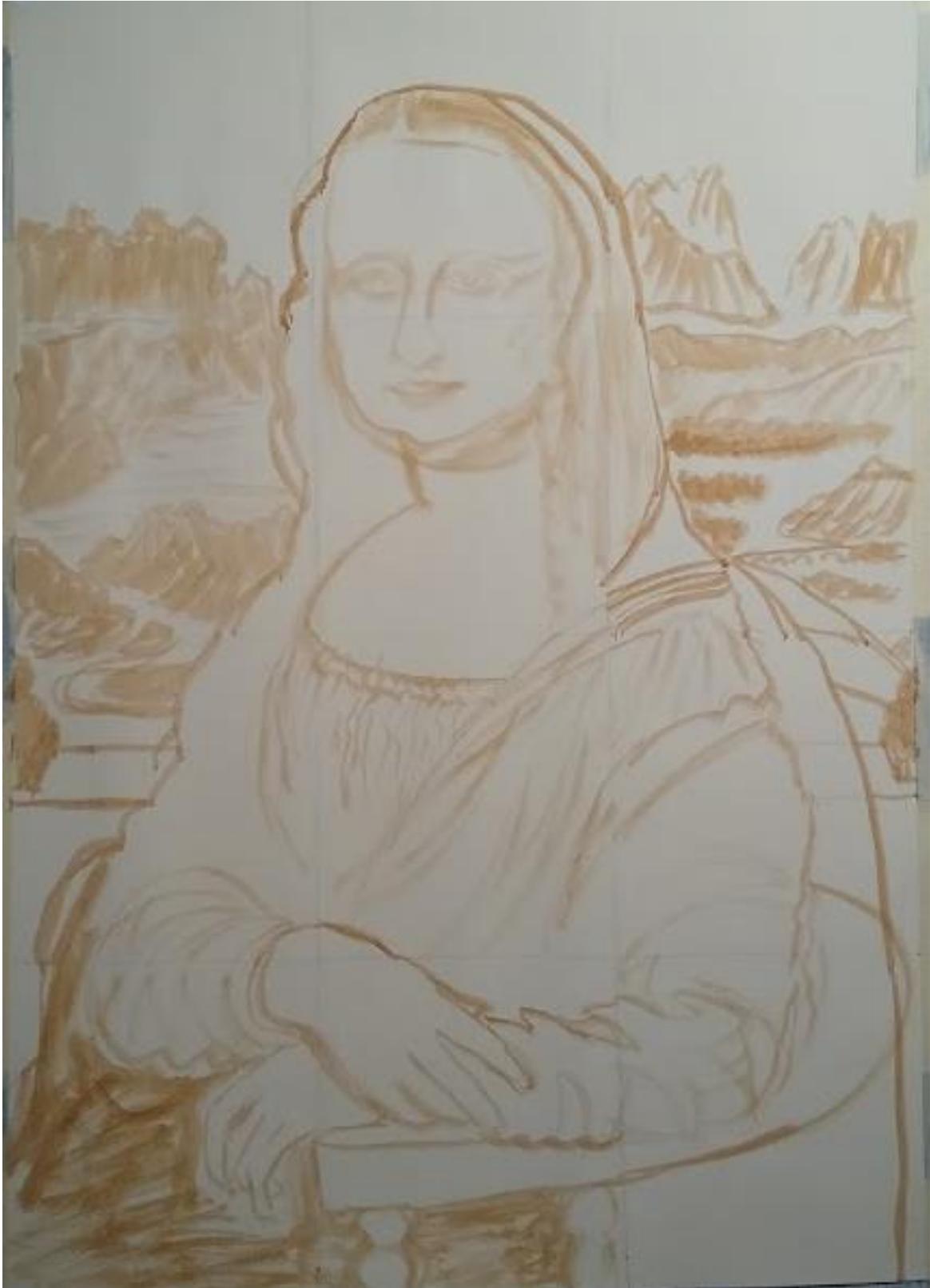
If the heart is the crown, what does this mean?

*Il Principe* XV may be my key. It condemns “*le cose circa un Principe immaginate,*” permitting only what is true. There is convenience here but one ingrained with error. It may be ironic, since he also claims the people know better than the monarch. His *Discourses* elevate the ancient Republic, while conceding its nonexistence. Is he playing the trickster and shape-shifter coyote, or playing at playing? Cajete highlights the metaphoric mind, self-destroying greed, and seeing shared pattern among different things.

The *Six Memos* show the moon as vagueness, reminding or informing us that “vague” also means “beautiful” in Italian. Do I appreciate the moon enough, spend enough time with it? I watch it through bare winter branches near my house after dusk. Book two has a haiku of it. Still I must answer definitely no. “The sight of her with just a little smile / Cannot be put in words or held in mind, / It is so marvelous and fresh and gentle.” I can spend more time in year MMXXII, even getting a telescope! *La Vita* explains not only Beatrice is *Nuova*, but that inanimate things may speak to us, we rhymers. It uses *parea*. Those who Beatrice greets are rid of pride and wrath. How can she not be part of the ideal city, and therefore as real as anything and everything, source and harbinger of all better things?

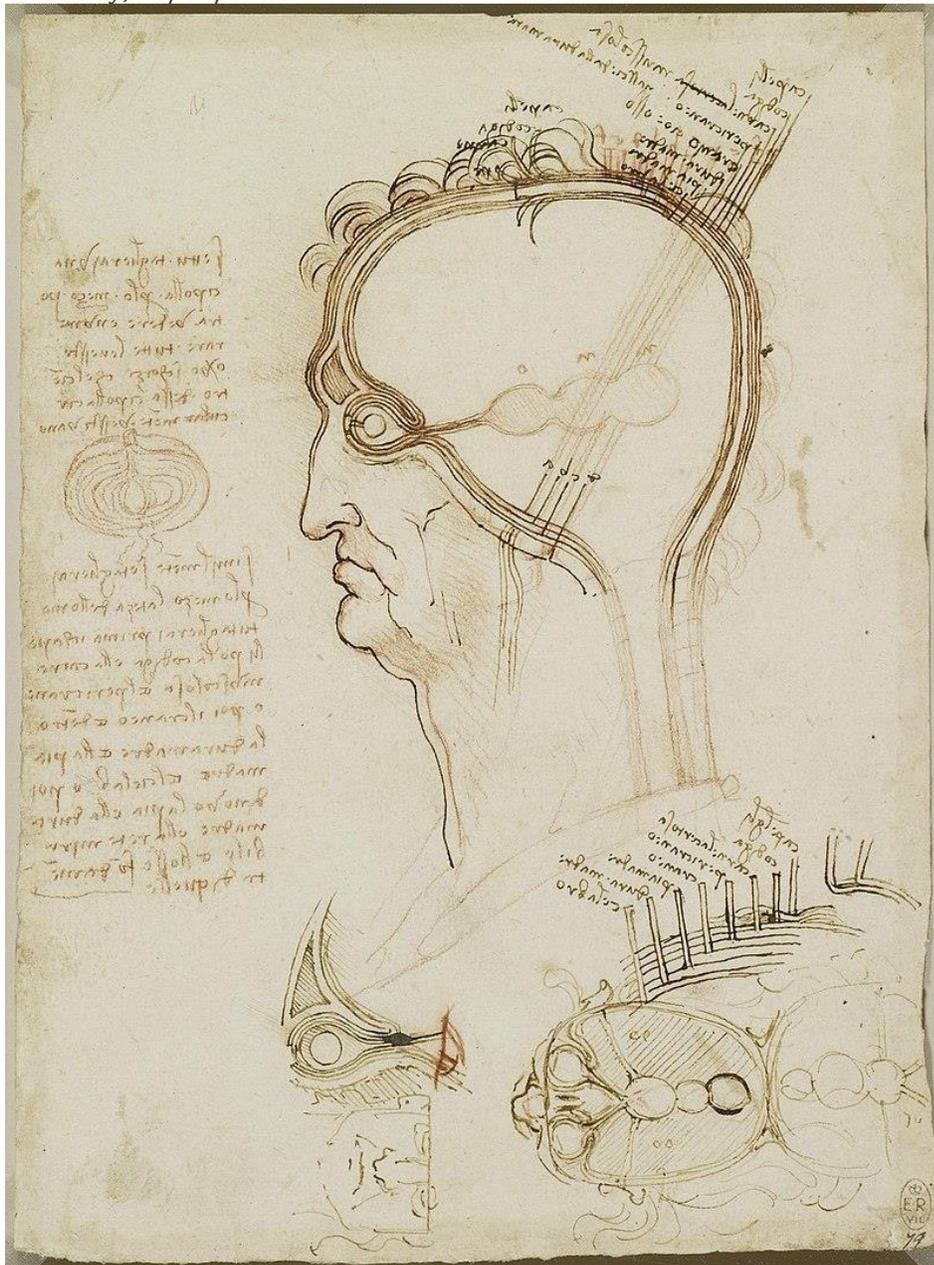
Coincidence brought me another book, yesterday, about my country’s desert West, its bizarre irrigation and railroad nets, its stories and pictures, by one of its best-lettered daughters recently passed. I’ve only read Part One and do not know the end. I’ve been to Donner Pass and liked the petroglyphs the best of all. The book and state seem all about the passage, east to west, what is brought and what is found. There is also great failure, blindness, and loss. Per Machiavel, “*Onde e necessario ad un Principe, volendosi mantenere, imparare a potere essere non buono, ed usarlo e non usarlo secondo la necessita.*”

Like the simple gifts which follow winter's end, *Mona Lisa* turns to us, changing us, emerging like the moon itself.



# THE MINDFUL MONA LISA: SUSTAINABLE COMMUNICATION

By Max Herman  
Thursday, 04/07/2022



Italo Calvino, an author always fascinated by science's impact on literature and the relationship between visual and verbal imagination, writes in his "[Quickness](#)" essay from *Six Memos for the Next Millennium*:

"In an age when other fantastically speedy, widespread media are triumphing, and running the risk of flattening all communication onto a single, homogeneous surface, the function of literature is communication between things that are different simply because they are different, not blunting but even sharpening the differences between them, following the true bent of written language."

One of his symbols of quickness in literature is the Olympian [deity](#) Hermes-Mercury:

"[The] god of communication and mediation, who under the name of [Thoth](#) was the inventor of writing.... Mercury with his winged feet, light and airborne, astute, agile, adaptable, free and easy, established the relationships of the gods among themselves and those between gods and humans, between universal laws and individual destinies, between the forces of nature and the forms of culture, between the objects of the world and all thinking subjects."

He adds that "For the ancients, who saw microcosm and macrocosm mirrored in the correspondences between psychology and astrology, between humours, temperaments, [planets](#), and constellations, Mercury's nature was the most indefinite and variable." As the deliverer of dreams to sleep, and [guide](#) of spirits to the underworld, Mercury is sometimes understood as a [bridge](#) between realms.

Into his short essay on quickness as a literary value Calvino weaves diverse and curious threads:

Galileo's [dialogue](#) between Simplicio and Salviati regarding the Copernican model; the role of magic objects in folklore as "knots" in the network of narrative relationships; the relativity of time for Scheherazade and Rip Van Winkle.

Leonardo too valued the speed and directness of communication made possible by visual imagery, as well as its power to establish pattern across diverse phenomena, [writing](#) that "The mind passes in an instant from east to west; and all the great incorporeal things resemble these very closely in speed." Yet he also realized that contemplative observation and patient science of both the anatomy of sense perception and natural phenomena were crucial to the information-flows comprising perception, imagination, and expression. *Festina lente*, continuing the slow yet urgent work of the arts and sciences over centuries. "Shun those studies in which the work that results dies with the worker."

Sustainable communication must be not only rapid and agile enough to keep pace with human experience but nuanced and rich enough not to diminish awareness to a state of blindness or elision. Fidelity to the interdependent realities of nature, technology, and humanity is one definition of truth, or as Leonardo wrote: "Falsehood puts on a mask. Nothing is hidden under the sun." Nature should be the *maestra* of art.

Since communication – including freedom of speech and assembly, representative democracy, and the rule of law – is so fundamental to political life any culture of sustainability must foster and defend sustainable communication in all spheres. In turn, cultural dialogue and awareness provide an indispensable fabric of knowledge and information within which a sustainable [politics](#) can take shape and achieve resilience.

Machiavellian communication as depicted in *The Prince* – subordinated to the acquisition of power by force, adversarial in logic, and reliant on deception and manipulation – when unconstrained by a system of higher values leads only to the kind of tragic destruction still all too clearly on display even among very modern societies, even with all our marvels of AI, social media, and instant massive data transfer.

Next blog: compassion and affinity

What is the *Commedia* but a talk?  
 With Virgil, Beatrice, and himself,  
 Our Dante counters the deceiving elf  
 Who legless, frozen, ice-bound, cannot walk.  
 Hence logic, dialectic, is the stalk  
 Whose leaf sprouts lively readings on a shelf  
 Of books denied him by triumphant Guelph --  
 The other sort -- his dream resolved to balk.  
 Yet logic, like decision, isn't quite  
 The same as words. Its tendency imparts  
 Succeeding waves that land upon the shore  
 Yet faster and in air it moves like light.  
 Its speed and bridging power pulses hearts,  
 The composition bringing to the fore.

Perhaps *A Musical Offering* can be my guide herein for Chapter Two. Bach starts off with a very difficult theme, a puzzler, given him by his son Carl who may have wanted to defeat his dad in front of Emperor or whatever Frederick of Prussia, the Great. The difficulty is how to permutate the theme in multiple parts, three or even six. Bach accomplished this, and I listen.

Maybe Mercury, speed, or *forza*, isn't the accomplishment but the accomplishing, not the communicated but the communicating. Maybe he doesn't make the messages, but just delivers them? It's almost too suited that he's called a bridge. The second element of the Eightfold Path relates: right resolve. Dante decides, in dark *Inferno* II, to communicate with Virgil and compose his fate with that of his teacher. He could have chosen otherwise. That's a great part of communication: which point A to link with which point B. It doesn't seem that Mercury chooses these choices per se, but rather his actions are the manifestation of the choice made by some other god. He *is* the logic, so to speak.

In Leonardo's terms, I call this sphere composition. Why is the *Mona Lisa* set up the way it is? How is the pageant blocked out, each player assigned their mark onstage? The allegory is part of the composition, as is the sitter's turn and our fixity to her facial expression, our mirroring link. It's

something like the logic of forces, Newton's law, if A then B. It has an instantaneous quality, but is also slow or eventless in its way – it isn't the event.

Bach's *Offering* has a somewhat political story around it. His son was trying to impress Emperor Frederick, his somewhat estranged son perhaps, and tried to make Father look bad, old, and perhaps to be a dud. Why? Because politicians have access to money and audiences? I don't know. Old gripes maybe. In any case, Bach's reply, explicated well and duly by Hofstadter in the *GEB*, with especial notice of vortices and the *canon perpetuus*, was a message to the king and the son both. It seems to be saying, "still and all, do try your best, because it's important that you both do."

Mercury has of course to do with the market, but also with laws and thievery which makes him political too. Perhaps air is the most according element, which we breathe to keep our cells moving and vocalize to share expression. It carries sound for us, which the ears carry into the first brain-bubble to mix with light-shapes from the eyes. Then we go from there. All these tremulous and rippling puffs of air swirl about us like fumes of silk tapestry, arabesque or feisty and sputtering. And every one, every *fumos* or *spiritelle* of every god or principle, has its own time, place, and uncertainty of destination or effect. This makes every single one an experiment, a predictive attempt to regulate something, just like Beatrice says in *Paradiso* II: "*fonte ai rivi di vostr' arti.*"

Hermes too is a trickster, knowledgeable of disguise and appearance, but he is neither a liar, nor superficial, nor is he irresponsible. Machiavelli seems to like to say everything is a lie because it isn't certain. But this is wrong, and pernicious. I think Machiavelli's logic feeds on fear, like the kind lingering in my abdomen during these days of slaughter by siege. Frustrating. Like Saint George perhaps I shall try to battle the serpent. Or he may be too extreme for me, fond as I am of Donatello. Hamlet knows that to play is to hold a mirror up to nature and show the very time its form and pressure. This certainly exhibits qualities of air, and wasn't air quality a big deal in Elizabethan England?

They say April is cruel, the onset of spring in cold places, but why? Perhaps while ensconced in winter we go a bit dormant like a winged seed from a maple tree, content and quiet in a real way, then when spring hits we have to take on a whole new definition of living. There's a disjoint. Or, there appears to be one, and we struggle helplessly to fix it. "One must have a mind of winter," as the saying goes. Does this pertain even in spring?

How one gets one's information, and how one thinks one's neighbors should, has been a topic for a long time. One wants to have some information, of course, but not just any old kind and neither too much nor too little. It's a bit like a nutrient. Therefore dietary laws come into play, some logical and others not. Sometimes they only matter because of happenstance. Section two of the Mosaic law states that carvings or sculptures should never be compared to the divine truths and never be viewed as their source. One can see the rationale for this fairly clearly, as well as its inconsistencies and counter-arguments. What if the carvings aren't working well enough? You can say "carve different" but sometimes it's easier to say "no more carvings." Huh? Yes, you have to take a pause. Then perhaps after centuries the words which replaced the carvings reveal some limitations and once again visual imagery of one kind or another is pursued. I guess sometimes you have to take a break.

Cities have something to do with communication perhaps, and with sustainability, but they are not always sustainable or sustained. Paris is one city which underwent tribulations, over many centuries, and tried many different plans for success. Its density as you walk through it is not just of people or buildings but of information, specifically from various times. It can be very cold even in spring, or rainy, and one's walks at the old ancient amphitheatre can be interrupted. The *Mona Lisa* is there. As in the second Federalist Paper, the committees and publications must work to keep so many diverse interests united. Too much selfishness always disunites!

Machiavelli was ambassador to Paris once, as was Benjamin Franklin, favored son of the right hand and free citizen-builder. Franklin was neither naïve nor a pushover but he held a kind of faith Machiavelli lacked as do his more modern i.e. nineteenth-century offspring. We each must consider whom we more want to be like. They wore different clothing to be sure, Machiavelli a kind of toga-robe and Franklin white socks with buckle shoes and a wig. Paris was different too, with more old fancy buildings when Ben was there. The *Mona Lisa* was there, like a knot in the network, but who knows if he saw it. It wasn't there for Machiavelli I don't think.

Like any lucky or magnetic object the *Mona Lisa* still draws attention, something like twenty million eye sockets per year, and it is still the center core of this trilogy-book. Overall humans have too much frantic, shallow activity a la screen time as well as too much putatively explanatory jargon. People scurry like hungry squirrels after the one and hoard the latter like moldy acorns in spring. These equate to sprawl in the civic and engineering senses. The problem is not too little of either, but more an issue of quality in the matter of choice or as you could say logic. The mountains of information waste tower. It's not more and newer we ought to consider only but less and older (the always or better). This is what *Mona Lisa – Esperienza* – tells us. Just look: what is communicative logic? It's what to say by whom to whom, like a triangle. This is the heart of it: blood, movement, and mixing. She looks at us, we her; she gestures and we mirror; she smiles and we smile back. Pay attention!

Melville's *Bartleby*, American archetype of communication, was to have been the topic of memo six before Calvino died of an aneurysm leaving it aptly titled but unwritten. *Bartleby* was badly damaged but knew one thing: his writing did not communicate his experience, and should. Leonardo could not have meant anyone else when he said "As *maestra*, I will acknowledge her and, in every case, I will give her as evidence."

We move within a city; the city influences us; we influence the city.

The NIH site “Native Voices” features a diagram of an “Ojibwe Stone Medicine Wheel.” The first eight stones, forming the center, reference the sun, moon, earth, creator, and four clans. The Butterfly Clan seems to match Mercury best: the “key” says its element is air, and its medicinal property transformation. One walks into the circle, then experiences the elements of the wheel in such a way as to restore balance, awareness, and health. (The butterfly and crab form one emblem of *festina lente*.) Variability is what gives Mercury his power to carry messages through the air and across realms.

The angel boatman in *Purgatorio* II is also a minister of air: his boat barely touches the water, impelled by his motionless wings. The ferried spirits sing of exodus from *Aegyptio*, having dodged hell, and Dante’s friend sings his own song – a poem within the poem – to him, “*the love that discourses to me in my mind*.” The love that delivers messages. He tries to hug his friend, but his friend is just air too! Dante’s poem of transformation was itself a transformation, one of the most important in all European literature, because he wrote it in Italian. He followed his own logic from *De Vulgari Eloquentia*, the eloquent vulgar, his second book.

The love that discourses, to me, in my mind, and changes me: this is the principle that bonds Dante to Beatrice and all that follows. (Love is next chapter.) Saint Lucia, enemy of cruelty, brings the message to Beatrice that Dante needs help.

Machiavelli purports to know Dante but is, in my opinion, a bit of a fraud. He says humans are evil, and one must be evil to fight them. Somehow *Il Principe*, leader, or decision-maker might miraculously jump to a Republic of all Italy, a redeemer type, goes the apology. This led to a whole lot of fascism which is hard to define as anything other than a politics of violent crime. Where is the transformation, the *trasumanar*, from dictatorship to worker’s paradise, Borgia to Republican Rome? Machiavelli says power must be first. Dante says, unmistakably, virtue must.

Right Two in the Bill of Rights, after Right One set forth the right to bear arms, sets forth the right to bear arms, almost as if to pacify those who would say “what about when might makes right?” Art and arm are from the same root, joint or limb. They could have said arms first, but had hopes of being less violent than Europe had been. They said it second. One could say second is higher and better, but first could be too and the second a necessary evil. As to regulations, I have to leave that for a later book perchance.

Dante’s sense of Mercury I would call Communication, juxtaposed to Leonardo’s Composition, Dante’s meaning being a sense of mapping and movement like roads, ferries, ladders, and the like, paths and routes. This is his logic which is not just words only and distinct from song as such. (Remember Plato loved logic but banned poets.) Leonardo’s second painting, the *Adoration of the Magi*, is a good image of these two aspects of Mercury for the mind. It’s a bit like a maelstrom, with distant horizons, horses, soldiers, villagers, officials, young and old, ruins and plains, all converging on the powerful gesture of the infant savior reaching for the lid on a gift of myrrh. Just think: all that wisdom, not just one or two wise ones but three, the number of all, condensed and centered on such a minimal gesture from – not to – a tiny baby. The painting’s not really painted, just sketched, but it looks like a picture of the whole human universe, kind of a jungle of contortions and facial expressions and motion, a tempest or storm of activity all gathered into and around a miniscule and still hand-touch. This is a kind of commerce, though art and commerce are not the same thing, and an apt window through which to view our second planet and sphere.

Still I blame Machiavelli, and those who on his authority place power before virtue, for the excess of war. He’s like someone who lets their dog poop on their neighbor’s yard thinking it will evaporate like mist. I prefer to defy and oppose him.

On a more practical note, yesterday I re-read Leslie Geddes' commentary about the bridge in *Watermarks: Leonardo da Vinci and the Mastery of Nature*, October 2020, p.138:

"This correspondence between man's habitation and the natural landscape is made visible through his inclusion of a stone bridge, pictured in the landscape of the *Mona Lisa* just beyond the figure's left shoulder (Fig. 97). Unlike mobile bridges, this bridge has a fixed location; its three semicircular masonry arches span a broad river channel. The sole man-made element in the landscape, it signals technical ingenuity, man's stake in the land, and access to travel across variable natural environments. As the natural world underwent constant change, the process of building and navigating its terrain was hardly static. To master nature was not a one-time enterprise but rather an unrelieved process of upkeep and adjustment. The stone bridge recalls ancient Roman designs and references both the durable and the potentially -- even persistently - - useful. The bridge tapers off at the riverbanks, seeming to touch Lisa Gherardini's shoulder on the bare flesh just above the fold of her dress. The structure forms a symbolic link between the sitter and the background, connecting the personal and human to the wild and natural landscape.<sup>67</sup> The motif appears on the verso of the early landscape, where an arch suggesting a bridge connects a steeply inclined hill with a low-lying, flatter plain (see Fig. 83). Beyond this detail, quickly drawn ribbons of ink squiggle back and forth, supporting the notion that Leonardo was quickly sketching a bridge spanning a broad watercourse, itself dividing the composition.<sup>68</sup> While unfinished, the landscape as it is rendered in black chalk with an ink overlay preserves a sense of nature's uneven, untamed terrain. In the *Mona Lisa*, the difficulties of physical passage are encoded in the landscape even as Leonardo renders it from a bird's eye view. The background calls upon the viewer to navigate heterogeneous terrain and wending, even obfuscating passages.<sup>69</sup> In a way, close observation of the landscape of the *Mona Lisa* correlates with the early modern experience of traversing land, where roads are comprised of switchbacks and overgrowth, waterways rendered poorly navigable by flooding and erosion.<sup>70</sup>"

Leonardo's early landscape, drawn at twenty-one, also featuring a bridge (Fig. 83 above, compare to *Woman Standing in a Landscape* RCIN 912581) is *Landscape and Figure Studies*, 1473, black chalk, pen with brown ink, 194x285 mm (7 3/5 x 11 1/5 in.), Gabinetto dei Disegni e delle Stampe, Uffizi, Florence, Inv. 8 P verso.

From Geddes, p. 220:

67 My interpretation of the bridge detail is complementary with other readings of the painting, which seek to frame a similar exchange between the sitter and the landscape. For example, Rosand offers: "On one level of interpretation we might read this neat contrast as a simple binary structure: flesh and rock, soft and hard, feminine and masculine...[but] his art

acknowledged instead relationships that were more open, complex, and dynamic" ("The Portrait, Courtier, and Death," 112)....

68 If indeed depicting a bridge, this detail does not make an appearance on the recto, which, as already discussed, renders water with greater attentiveness.

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A couple of points on which I differ somewhat from Geddes' reading:

- Although the bridge does lead the eye to the sitter's shoulder, its primary connective point is not "bare flesh," but rather, it aligns with and connects the composition to the garment thus infusing the sitter's dress with and carrying further forward the metaphorical, compositional, and thematic content of the bridge.
- Regarding the s-shape in the left background and the roughly mirror-symmetrical shape in the right background, I do not see two paths or roads (an interpretation which is fairly common but I believe mistaken based on physical details as well as parallels to other drawings by Leonardo) but two rivers, the left one shallow or dry and older.

<https://press.princeton.edu/books/hardcover/9780691192697/watermarks>

The book arrived early 2022 in the mail, presumably by plane or air. It has words and ideas, some of which relate to my second blog of 2020, "Expert Evidence." It mentions the dress, as does "Fortune's Garment in Dante and Machiavelli," my second blog of 2021. "Constant change" is comparable to Fortune, yet Geddes connects the bridge to the body not the garment. Just my luck!

*Il Principe* XXV is key on *fortuna*, commerce and communication, rivaling XV's "*le cose circa un Principe immaginate*." In the former, he says half of all results, or a bit more than half, are caused by chance, and the rest are up to us. This is either intentionally inane, or accidentally: whether the sun rises tomorrow is not half up to us. Heads or tails is not half up to us. Dante frames Fortune right, having full power – not half – over her realm which is "all the goods of this world." Yet I kick about Machiavelli too much, and have to read his *Discourses on Livy* which are, they say, more democratic and sober than *Il Principe*, any errors of the latter corrected by the former. I'll say right now I disagree. Still worth reading, maybe, but wrong, trying to place politics atop the *paragone* of arts rather than where it belongs, at the base, important but always secondary.

Example: Virgil's second Eclogue is of Corydon, a kind of yokel farmer, singing about how the one he loves isn't interested in him. It's about futility and the need to try anyway, placing by contraries the humble act of poetry at the top of all tasks: "every thing pursues what it loves." Words pursue and travel. In this way, the great and mighty are much less than the ordinary singing subject. Indeed, each Canto II of the *Commedia*, all three, are about moving by air: out of the dark forest, across the river to Purgatory, out in one's boat to follow Dante's. Beatrice in *Paradiso* II explains how all the universe is moved in a similar mirror kind of way; subjects and objects move and travel the cosmos according to their character goes the canto. Same in *Purgatorio* II. Same in *Inferno* II. Illusion on my part? Maybe, but most likely not, since as they say the *Commedia* is built like a cathedral with lots of patterned symmetry. The first boat we get as a rescue, the second we partly earn, the third we pilot ourselves.

Sea is Greek for bridge, don't forget. *Finnegans Wake* – no apostrophe, as in wake up? – is known to be based on Purgatory and Vico's stages. Purgatory is kind of like breathing, words are too. Yesterday was Good Friday.

Today it's a bit warmer and the maple trees are dripping sap. It's probably because of torrential winds we had lately, breaking branches. There was a giant tree trunk floating down the middle of the river yesterday which I saw from the high bridge. Watch out, boats! There's a lot of debris at the shore I visit so I'll do some pickup today. I saw a very large eagle perched above the walking path this week, watching my dog and me or the ducks nearby. Some large pieces of bark broke off my favorite cottonwood tree, which is 26.5 feet around.

I'm feeling too judgmental of Machiavelli today. He certainly praised evil, but maybe he was just trying his best to be modern and impress the other boys. Still, as one of his disciples said "the most important thing is preservation of rank," a falsity of course but if even partly true I must break a lance in honor of my *maestra Esperienza* this fine spring day. Machiavel is plain incorrect to say *Esperienza*, who

is part Fortune, should be bullied and oppressed – it's the opposite. She is guide and teacher, respect for whom being the source of blessing and good fortune. It doesn't matter whether you are a new prince, an old one, or a republic. You can be a citizen, subject, artist, or scientist. The portrait of *Esperienza* is universal not just in geologic or hydrologic terms, light and shadow, atmospheric perspective and spinal torsion, but regarding power and freedom – the lion, law, necessity, and victory. (Leonardo drew himself as lions, usually observing.) *Necessita* is the principle that animates logic. Leonardo wrote "Necessity is the curb and law of Nature," and "*Esperienza* is the interpreter between humans and nature." What kind of prince bullies and threatens the interpreter? That way madness lies.

Machiavelli did, in fairness, author the great and original error of modernity: oversimplify and reduce to get a truism, then elaborate it infinitely as a profession. It's the cult of blind expertise, "he who trades honor for gain." Leonardo opposes this and defeats it. Period. He foresaw it, understood its power, and designed its inevitable downfall, like trees breaking in spring.

Yet some days I wake up, it's cloudy, and I feel right back where I started. Even my best friends think I'm probably wrong, probably, about the *Mona Lisa* mattering much. They don't agree it matters much. Still, they want me to be happy. They might be right, and I wrong, about whether it's worth thinking, reading, writing, and breathing so much about it. As yet it's a letter with no forwarding address. And how can anything be improved, much less a lot, when stability and conservation are so desperate? When madness, fear, and terror prevail in every heart, how can meaningful changes even be hinted at without cursing all that is good or can be good to terrified, drowning chaos?

Being both gloomy and hopeful today, with gloom the newer visitor and hope lingering from yesterday, perhaps in a sign of overwork and a case of the jitters, it occurred to me – on the basement stairs, I think – that I could read *Inferno* II where Dante has his fear explained to him and relieved, his fear, that is, of writing poetry. Something like that and my lucky songs usually – actually always so far –

break me out of any funk. Then I saw a bit of why there are three books in the *Commedia*: *Inferno* is for gloomy days.

It's the first image of *Inferno* II which struck me today, though, and I never noticed it before:

The day was now departing; the dark air  
Released the living beings of the earth  
From work and weariness....

The canto starts with air and ends with several references to words – from Beatrice to Virgil, Virgil to Dante, and Dante back to Virgil – circulating from spacious heaven to the constricted forest of fear and giving Dante the impetus for his journey. Fear, of course, stifles breathing first as well as words, killing movement. Yet how can the *Mona Lisa* relate to breathing? It's visual, not spoken. Well, we breathe while we see, and *Mona Lisa* is the beloved lady same as Beatrice was. Her realism hints at pulse and breath, heightened not crushed by stillness, and forces us to sense our own which is real not just imagined.

What is sustainable communication, and what am I even talking about? Let's backtrack.

Mercury, planet *dos*, moves on a sphere. That sphere is called Logic (or "dialectic"), which is like Reasoning or Deciding or a mix of both. The sphere is like a vinyl circular disc record, and gravity turns the turntable, and the rocky planet Mercury is the needle in the groove that makes the sound, which is silent, but transmits the information to humans on earth. This is where Logic comes from and how it gets to us. Logic is symbolized by the god Hermes, the messenger. He's not a confidante or conversationalist: he delivers the messages. Logic, the messenger, is associated with communication, but it's really one part of communication, i.e., the messaging part, the delivery and transport, by air so to speak.

Therefore, kind Reader, Sustainable Communication is, we may simplify and re-state, Sufficient Information Flow.

What is sufficient? It's the Sustainable part. Sufficient, i.e. enough to sustain, and not excessive or too much to sustain. Sustain what? Well, itself – the “local logic” of the Logic, like keeping the particular conversation going, but also the larger and greater system (if any) on which the local one depends. It's a conversation in a coffee shop being able to sustain itself, but also to be about whatever might be needed to keep the coffee shop sustained.

Backtracking again: it's sufficient information flow, sufficient in its own right but also on the greater scale of need if there is one.

Exemplum: a conversation in a moving airplane is sustainable if it is able to continue, *como un canon perpetuum*, but also if it is consonant with keeping the airplane from crashing.

Thinking of right resolve: it can't just be resolve, it has to be congruent with sustainability if it is going to be Sustainable Right Resolve or Sustainable Resolve.

Too much information flow is not sufficient, because it is insufficiently non-excessive.

Good logic, right logic, is the music of sphere two, and, remember, a lived experience of music.

What is Sustainability? It can be three main types: “underground in a tin can,” “out in space in a tin can,” or “living biosphere on earth.”

What kind of communication favors what kind of sustainability? Communication that favors war is good for the tin can kind, in which earth life is destroyed; that which favors peace is better for the non-tin-can kind. A replay of great power politics 1922-2021 could well guarantee us all tin cans. Is there an alternative practically possible and not too risky to prohibit any attempt? Leonardo tried to engineer us such a one, where the two of humans and art do not kill off the third of three, living nature.

Conservatives, say, prioritize the monarch and senate over the *demos*. “*Demos* too risky,” they say, and will continue to. They take Machiavellian measures, and will. Ecco. What else, or then? John Jay wrote in paper two “unity is best and requires we talk it out, and codify agreement among executive, aristocrat, and the *demos*.” Easier said than done, still. What is the logic, does it compose and balance, is the experiment. What are the messages is asked. We are required to answer, ongoing, being asked.

One may call transport, logic, message delivery a kind of bridge or set of bridges: “bridge.” Hence Mercury is bridge. What kind is most healing for life, preserving? Butterfly Clan kind I’d hazard to guess, air and transformation. Defection, or hostility, or war, in the Prisoner’s Dilemma is the given of *Il Principe* but yields Tragedy of the Commons – no one tends to the environment. There is no *incentivo*. Dams and dikes, called armies and laws, may be necessary but don’t suffice and can themselves worsen floods and kill off the good *como fascismo*. Look further.

Yes autocracy and democracy, though flawed, are not yet done competing. My hope is to favor the latter not, not hardly, the former, but not fantastically, respecting necessity of the *immaginate*.

Hamlet is right resolve. Claudius is Machiavel to perfection, but wrong. He kills his own *immaginate* because it shows him his guilt and disease – hectic – exactly from *Il Principe*. Laertes is rash, and regrets it. Claudius craves survival but killed it in advance. R&G are algorithms.

Plainly: communication ruled by *Esperienza* is better; by *Il Principe* worse.

*Romanus Pontifex*? True. *Dum Diversas*? Until Different!

Imagine just two loops we all transit each day: that from sleep to waking, once or twice, and from inhale to exhale many more. These are logical motions we traverse having geometry and measure. (Think Bacon in Weston’s intro.) What does *Il Principe* lose or kill in trying to corral and brutalize the

element of flow? What does the artist and scientist gain by allowing *Esperienza* to lead and guide the flows of traversal and the traversals of flow?

Or in *Paradiso* II: Dante and Beatrice float into the sphere of the moon, their imaginative bodies interfusing with it, *corpo in corpo*. I see a possible issue in Joyce, basing *Finnegans* on purgation – *Purgatorio* isn't the only change canticle. *Inferno* has change too – imprisoning change – and Dante is changed, lightened, made less blind, at each phase of *Paradiso*. *Purgatorio* removes, moreso; *Paradiso* adds; subtracting and eliciting are in each. Two hands gesture, two feet dance.

Lucifer was the brightest angel but sought too much control and committed too much fraud and violence to get it. He wanted more control than right proportion; he pledged everything he had to hybris. So he got frozen in ice. Grip your club too tight, you find the sand.

Freedom requires freedom so Dante wrote in Italian liberating verse from narrow Latin. This worked to make messaging more open, led by direct experience and direct experiment, you and me, better control by less constraint. He saw the rot of excess control, Leonardo noting “still water breeds corruption” or *De Vulgari Eloquentia*, the importance of changing to flight in air.

I wrote yesterday about the two *Yarnwinders*, replying to an objection that the ML bridge cannot mean anything, and noticed how the spindle and bridge are mirrored (the Buccleuch spindle is painted over, making it rather like the bridgeless left background of Mona Lisa). The Lansdowne bridge and road mirror the hand and lines of garment, while its earth striations echo and refract the spindle. The infant points in both. The ML points to weave, transit, and traverse too. Mercury is in flight-motion, snakes in torsion around directional caduceus. I saw the temple of the God of Wind last week, Kukulkan?

Each canto II has a logic: use experience, use experiment, all else is secondary. Dogma, doctrine, authority are secondary to their *maestra Esperienza*. Logic is not conversation *per se* but structure,

form, composition, within and between speakers, one half or third of communication, the movement and shape, himself himself inform, of inform, the communication of conversation. Largely if A then B. Gravity is energy and mass.

If I see the ghost, I'll talk to it. If the king starts affrighted, I'll know the ghost is honest.

London 1600, one century slower, equals Florence 1500, roughly enough. Hamlet, in his logic, obeys imagination – *le cose circa un Principe immaginate*, traits of an imagined prince – not coercing Fortune either. This way he remains the better, *il miglior, Principe*. Yet I too must choose, and act.

Logic. Decision. Choice. Rationale. Form.

These are constitution, laws faithful to *Esperienza*, necessary for sustainable union. Caduceus is healing, Aesclepius, plus more: writing, commerce, wings.

Losing dross I see more, remember more.

Even the cup fills, and empties.

Sustainable logic, its logic, must not omit.

Tyranny is unsustainable, and the unsustainable is tyrannous.

Shih Ho, tiger, Amor, cor.

“They who rely on authority in argument use not intellect but memory.”

The cart may not precede the horse.

*Esperienza* was the *maestra* of their masters.

Usurpation never brought back or preserved any republic.

Snake is more dragon than tiger, more wind than grid.

More antique Roman than a Dane, draw thy breath in pain.

The bridge. The bridge. The bridge.

*Il ponte tesse la veste.*

High can, low can, no can.

Right resolve.

The readiness is all.

*La Commedia* of the Commons.

View the *Mona Lisa* until you get the message.

Then become the *Mona Lisa*.

The magi are travelers with gifts received by abundant recompense.

I am *Il Principe* and I acknowledge *Esperienza* as *maestra*.

Machiavelli's logic is very often very wrong, as when saying there is no *maestra*.

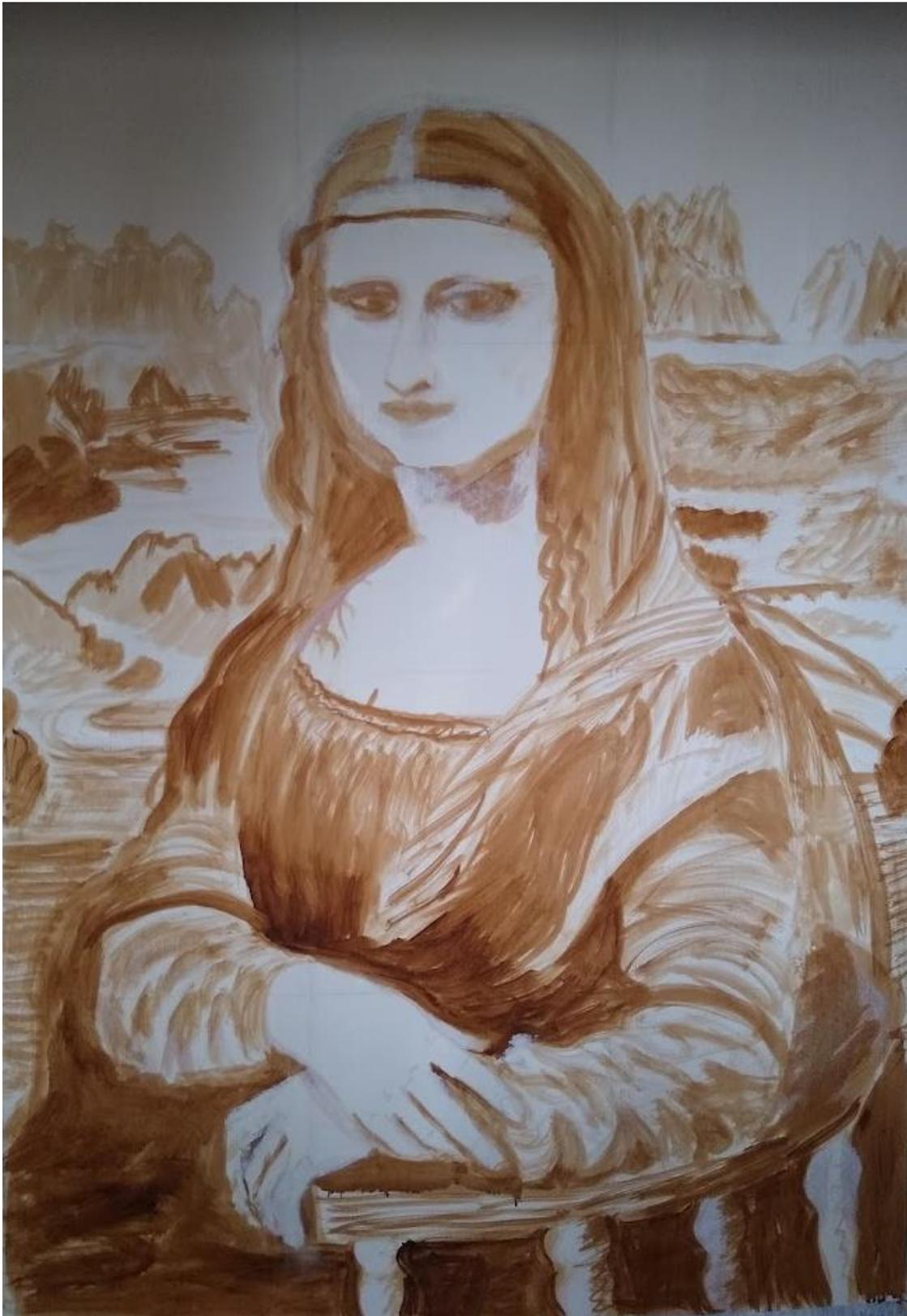
That is his most wrong logic, his main wrong, saying there is none.

There is a *maestra* in Beatrice, Fortuna, and *Esperienza*.

Machiavelli revered Cesare and Caesar overmuch, more than merited.

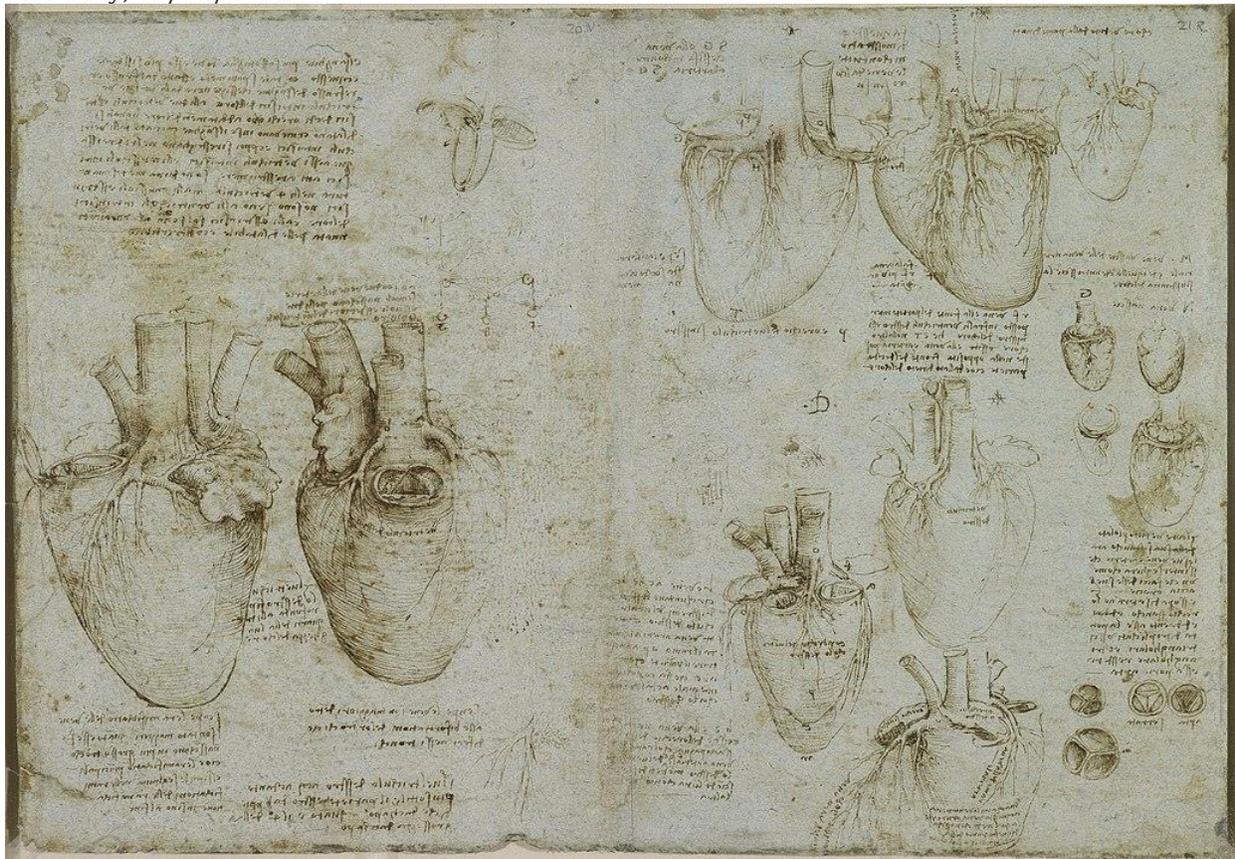
The excess is the error.

"All the arts and sciences" includes politics.



# THE MINDFUL MONA LISA: BEAUTY, COMPASSION, AND SUSTAINABLE SPEECH

By Max Herman  
Thursday, 05/05/2022



Rhetoric, the third liberal art of the classical [Trivium](#) (preceded by grammar and logic), is represented in the system of celestial spheres according to Aristotle by the planet Venus. This astronomical model of the arts and sciences was revived and reinterpreted by [Dante](#) in the early 14<sup>th</sup> century and was well known in his home city of Florence during the Renaissance period in which Leonardo played so central a part.

In a sense [rhetoric](#) is the more “embodied” of the three language arts, presuming as it does an audience of an actual time and place with whom the speaker seeks to engage in a concrete expressive relationship. [Emotion](#), the clearest and most direct bodily influence on our comprehension of language, is fundamental to the practice and art of rhetoric. The use of language with emotion constitutes one of the most essential building blocks of every social or political community.

Taking sustainable politics as the general theme for this year’s blogs, what kind of rhetoric might be understood as the most conducive to [sustainable](#) outcomes? The rhetoric of division, manipulation, and hatred is all too evident in so many aspects of contemporary life and poses grave risks to the collaboration and unity of purpose which the most urgent societal challenges demand.

In one of his interesting yet sometimes oblique writings on philosophy and ethics, Leonardo [wrote](#) regarding “the love of virtue”: “It never looks at any vile or base thing, but rather clings always to pure and virtuous things and takes up its abode in a noble heart; as the birds do in green woods on flowery branches.” Using themes and [metaphors](#) prevalent in the courtly poetry of his era, he wrote also that “The lover is moved by the beloved object as the senses are by sensual objects; and they unite and become one and the same thing. The work is the first thing born of this [union](#); if the thing loved is base the lover becomes base.”

Leonardo thus [integrates](#) aesthetic admiration with the other physical senses as a mode of perceiving reality, and shows great insight into how our perceptual experiences can shape our faculties (via [neuroplasticity](#)) as well as our imaginative and behavioral responses. In a similar sense, Dante had symbolized wisdom in the beloved [Beatrice](#) and by his faithful devotion to her was transformed out of fear

and despair into the redemptive realms of art, science, and poetry.

Perhaps rhetoric today should even include the [algorithms](#) and memes which shape our expressive relationships with one another. Because of their transformative power, it is not impractical to ask whether our modes of rhetorical engagement foster communal wellbeing and compassion or toxicity, dehumanization, and hate. (Machiavellian rhetoric favored by the [tyrant](#) seeking to rule by force may be expedient in the short term but can severely damage or “poison” the networks of meaning on which social fabric will always depend.)

Like the Buddhist tradition known simply as “[right speech](#),” a sustainable practice of rhetoric in all media of expression including verbal, visual, and even digital may be a basic necessity if we are to find enough common [ground](#) and shared resolve to cope with our greatest challenges.

Next blog: true and false

The heart of it all, living heart of all,  
 Caritas, agape, or *Amor*  
 Elusive to translation, Latin *cor*  
 Because of major vessels, garland fall  
 Of flowing blood brought in, sent out, to call  
 Forth and reply, the inner gate or door  
 Breath travels by and through, a river's roar  
 Of life within, earth's engine, home, and hall  
 Is never still. Necessity propels  
 It constantly, compassion for the truth  
 Implicit, wrought in every fiber, bound  
 From beat to beat in turn. Why care, like cells,  
 For all that breathes and moves? A kind of youth  
 Reborn, it bridges age to charity's round.

Machiavelli's creed for speech we know: evil be thou my good. The monarch needs a free hand, constitutions be damned. Democracy is incompatible with freedom, capitalism is more important than voting, and so on et cetera. Call it the rhetoric of rule, it's very straightforward and Roman, indubitable in its Appian way. It's might makes right, for without might there is nothing and thus no right. Or is there? What if right makes might but only when done well? What if wrong destroys might? Yet still we all know governments lie and government lies. What then is right speech, what could it possibly be, how could it possibly be?

Leonardo's creed is more unknown so let's look at it more and listen to his words more for a change. (Dante's we know, *Amor* and the Good.) Leonardo saw the tangles more, the nightmares ahead so very well, and knew he had to carry more or try and really have the wings for such a flight. That's why I like Leonardo's modern turn better, not a reversion but something richer and more real. Machiavelli you can see has a rearview mirror: "King should have done A not B, as we can see by his having done B and come to ruin; abjure the maxim 'leave it to time' 'for time, driving all things before it, may bring with it evil as well as good,' and take Roman action by my realist rules." Machiavelli sold false wisdom where Leonardo knew you can't get blood from a stone.

Love, Fear, and Esteem – write these on three stones.

It's very rhetorical, what Leonardo wrote, a fragment, perhaps next to a telling drawing of geometric forms or an allegory, or blood vessels, who knows or has time to make certain. "Love, Fear, and Esteem – write these on three stones. (Of Servants.)" Just try to sort that out a little. He's saying, "write some words on some stones, three each, this action or its product and result will tell you something you need to know about servants, how to have or be one or many or how not to." In a way it's an incredibly modern, arbitrary, or absurdist instruction, not linked to any logical or conventional pattern. No one tells anyone to write words on stones, not anyone ever. It resembles an imagist poem, haiku, or koan, highly abstract, extremely procedural, precise, and inexplicable. If we have rhetorical questions, not meant to be answered, this is a rhetorical command not possible to comprehend.

You may be laughing right now, at my discomfort, my desperation even. Who cares or possibly could care? Agreed. Yet still. Art and literature may be nonsense, refined entertainment with no claim to audience with dollars or armies. Yet it might not be just that or always that. I wrote Love, Fear, and Esteem on three stones. Did you? You might or might not. There's a universe in which you do, and one in which you do not. I wonder if anyone ever did before based on Leonardo's instructions. Now that I have these three stones – what kind were they supposed to be, large, medium, block, or coin-sized? Mine are the latter – what do they tell me about servants? Are the stones my servants, and Love, Fear, and Esteem tools I may use for other greater purposes? Or are the stones attributes of service, my own or others', which I'm meant to know are distinct and different enough to be different stones?

Maybe it's an algebra: let stone 1 = L, let stone 2 = F, let stone 3 = E, what is their rightful configuration? Love and Fear are both volatile, both Machiavelli's options. Esteem is different. Is he saying Esteem is the best option, to serve what you esteem?

Earth mother -- element of the Ojibwe medicine wheel – and Florence, third city, and first *Virgin of the Rocks*, please help me understand.

I went to get my three rocks, Love, Fear, and Esteem, to also help. What do they tell me?

First: Leonardo was a master of Audience, counterpart of Rhetoric and comparable to Dante's *Amor*, prime attribute of the sphere of Venus. Leonardo's first fame was as a singer and lutenist in the court of Milan, try to imagine that. No long gray beard yet, maybe long blond or brown hair, maybe shoulder length, sparkling eyes, strumming and singing, people knew he could paint and design too hence most compelling and one to watch. He knew what Audience was, how it succeeded Composition. Eventually he even knew that generations of posterity would be his Audience too, his readers and viewers. He gave us these three stones to ponder, and we give him Audience or hearing.

You can rearrange the stones or carry them in your pocket. I keep mine at my writing desk. You could place them on the ground and walk among them, but being small they are more object than architecture. They are personal to one, introspective so to speak. They or their existence say "what do we mean to you, what pattern or relationship do we show you?" They are about the personal conscience's view of servant and master, and from them I hear – today, maybe not tomorrow or yesterday – "Love is a better motive for service than Fear, but Esteem is better than both." Love and Fear feed on imbalance, desire and revulsion, unrest, but Esteem is in balance, like a cogent dance, losing neither value from the first two and refining out their dross or unsustainability. Esteem is sustainable.

You may not find the three rocks rhetorical – no matter. Perhaps you can feel yourself in Leonardo's audience, or neither. Imagine the three lobes of the black hole at our galaxy's center, just photographed, and think of them as these three stones.

Rhetorically, Machiavelli argued *Amor* was false, *immaginate*, not for the Prince to consider, useless dreaming, fairy tales. He failed to see it is the path to Esteem!

In more book club serendipity I learned this week about sociologist Goffman's theory of "dramaturgy" in which society and self are based on theatre, that is, performing roles. Goffman influenced Ellison apparently, who influenced me, and also Habermas who also did. I tried to be an academic even about them which is hopelessly irrelevant now. I distrust Goffman's concealment of his knowledge of Burke somewhat but know little about either. Burke's creed "dramatism," not "-turgy," said life is theater literally, Goffman metaphorically, a slight difference I'd say – very slight or even sleight. Goffman had to tailor Burke's use of "all the world's a stage" from Shakespeare to sociology's powers that be otherwise he couldn't have been a sociologist. Burke said the prime motive of life is using rhetoric to expiate guilt, a la Shakespeare and Greek tragedy but also a la fascist Germany, writing as he did during World War II, and a la primates overall, the two-part invention in F major of art and politics.

The book club book was about how Burke by way of Goffman relates to racism, being a mix of persuasion and coercion just like ancient Mayan performance. My focus in reading and writing about Habermas was more to do with direct conversational speech, and poetic expression, their interwovenness, at first, and only later (as well as before) about heroism and tragedy, but for me all artistic expression not just theater is how society manifests itself. Like the Greeks show, politics and theater are closely linked having princes as protagonists. Burke thought dramatism was peace, and fascism was war, dramatism being better and more hopeful. This is all from a cursory internet search by the way so take with nine grains of salt. I'd add that plants perform and display too, for example today, to move their pollen and circulate it for survival.

Take Florence, Firenze, city of bloom, third city, where Leonardo held the title Master of Water, builder of dams and defender from flood, military engineer, and see its resemblance to water.

I'm too desperate to explain that and how rhetoric and audience relate to politics and sustainability. I'm deviating from my course, losing "the name of action."

Back to the heart of it, river, bridge, and heart crown, the little harmonic labyrinth if you will, I must return. What if Leonardo wrote "Love, Fear, Esteem: of Masters"? Or carve, not write, these on three stones? I don't know if I know yet. But I know he's theatrical. He wrote about masks (which are the topic of next chapter). Like Terpsichore Bransle simple *la, la, la, je ne l'ose dire*. Brueghel painted the dancing villagers, what if the *Mona Lisa* is dancing too, or standing in a landscape? Two Part Invention in F Major. Yet I have to explain and understand rhetoric and audience, love, sustainable politics, political rhetoric, guilt and audience, rhetorical-political, visual-rhetorical-political, rhetorical-sustainable-poetical-visual, and plain old Machiavelli. I'll leave Goffman and Burke to you -- mask means person.

A Musical Offering.

Ricercar a 3.

It's fine that my book club book brought in theater, and sociology, and race.

*Paradiso* III tells about spirits who know the sweetness which cannot be known (*non s'intende?*) until it is tasted (*gustata*, "experienced" in Mandelbaum), how Dante asked these first heavenly spirits he met up high too eagerly to tell their story. Thus it is about speech and talking, far from looking only. The first spirit he met in *Paradiso*, *Paradiso III*, said "*La nostra carità non serra porte a giusta voglia*," "Our charity will never lock (*cerrado*) its gates against just will." Or *Purgatorio* III: "for haste (*fretta*) denies all acts their dignity (*l'onestade*, like honesty)."

I had to go back and read blog three from 2020, “A Five Minute Meditation,” and blog three from last year, “Experience and Bridges.” As *Inferno* III states, hell is where people have lost their intellect, or rather its good, “*il ben de l’intelletto*,” which old time John Jay might as Publius have called “apprehension” in Federalist Three, a Primary Documents of American History, *documento primo della storia Americana*: “The pride of states, as well as of men, naturally disposes them to justify all their actions, and opposes their acknowledging, correcting, or repairing their errors and offenses.” The sustainable united polity must practice the rhetoric of conscience not merely interest, passion, or faction.

Love, Fear, Esteem – (Of Servants.)

Regarding Cavalcanti, Dante’s mentor, perhaps Dante saw how he was dismissed and suppressed for his Averroism which was a kind of heresy like saying “the divine is in all things, no more present in religious institutions than anything else.” In any case Cavalcanti was persecuted and suppressed. Dante could have seen the danger of focusing on the movement of many *spiritelles* of many kinds like atoms or molecules in the natural and human world, so easily mischaracterized as pagan or irreligious. He could have opted for more solidity and solidarity, which fields its own kind of internal opposition, a friendship bond that drives for reform and evolves by necessity.

Take for example “*trahamanar significar per verba / non si poria*,” which means, “human transformation cannot be signified in words,” and “*pero l’esempio basti / a cui esperienza grazia serba*,” which means “but the example must suffice until experience grace provides.” Experience, he says, is the bridge of grace, not words. Institutions are based, sadly, on words.

Or take Machiavelli, who said religion is just a tool of government controlled by the addressee of *Il Principe*, our venerable Medici. At the very least he said there is no higher tribunal to which the prince

must appeal. Of course, he might have been lying to us! I have to keep an open heart to Machiavelli and consider if he was merely trying to create a vacuum which spiritual nature would suitably abhor.

My point is not to indulge in hate, the opposite of love, toward any institution, not that I don't want to or wasn't taught that is true conscience – freedom of spirit – but that I'm dedicating this trilogy to the proposition that love will work better and engineer a better design. It's the hypothesis. Experience is different than words, and when Leonardo says painting is different than words as well as the same and equal or better he is saying that painting is *Esperienza*. See?

Put another way, you have to actually do it. No one else can do it for you but you can and must without exception do it for yourself. This is why service means Esteem, equality, reciprocity, as Statius said, hence freedom.

Of course I realize, dear Reader, to include Goffman, Burke, rhetoric, and *caritas* plus a full account of Cavalcanti's meaning, origins, and influence on Dante, Leonardo, and Machiavelli in twenty pages is absurd. Yet you and I have an understanding, by now, I'm sure. We don't quibble. Like Averroes averred, we share a unity of intellect; only of a sort, but nevertheless.

Love for Cavalcanti was love of all things, moving beyond raw medieval fear. Love of wisdom (philosophy), nature, one's self and others was the path to both antiquity and modernity in a combined braid. This set of all loves, love per se, resembles romantic love in many ways so the *dolce stil novo* Cavalcanti invented with Dante used a rhetoric of loving a person to envision it. That was the theater.

We know Leonardo read "popular romances," bestsellers of his day having bawdry and satire, like the famous French *Romance of the Rose* which even Chaucer translated. It contains a proverb "until you experience love you cannot picture it." "Experience" made me wonder "did Leonardo read *Romance of the Rose*?" so I looked it up. I got no answer, but found Merezhkovsky's weird 1900 novel *The Romance of Leonardo* in which Leonardo converses at length with Machiavelli, explaining their

political nuances, and with Mona Lisa Gherardini too, explaining why he painted her. Needless to say I disapprove of much regarding said novel (only skimming it using control-F to look for “experience,” “garment,” “bridge,” “Cavalcanti,” etc., to ensure it didn’t already propose my hypotheses) and won’t read it fully or discuss it much since that would warp everything. But it’s a weird thing to find, not just because Merezhkovsky is strange and very highly suspect. A last thought: he was terribly flawed but got nominated for the Nobel Prize nine times.

Cavalcanti I will however study and discuss, especially his poems 27 “Donna Me Prega” and 28 on *spiritelle*, and how he said love can’t be fulfilled but leads to madness a la *Orlando Furioso*. Love of a person but also love of all else, unrequited, drives madness. Dante wisely feared this and avoided it using a calmed, balanced process. Leonardo did the same.

Two days ago was the super flower blood moon. I saw it out of my window. Flowers are for beauty but also pollination, to circulate DNA, allowing life and evolution. Florence is like that too. It circulated art and science, *Esperienza*, for its own daily life but also to change.

“*Donna me prega*” means “a lady bid me,” which means to speak and write, love impelling rhetoric. Beatrice did this too. Dante burned with madness that almost ended his life and writing in the Dark Forest. How can love be enough? I think the Terpsichore la, la, la dance song is one answer. “*Donna me prega*” says love always wants more, and when someone’s love departs from virtue “it can’t be said that they are still alive / for they have no self-mastery, so their lot / is much the same when love is quite forgot.” Thus for such love of all things to be requited one needs an image of the beloved.

Burke said the main life-drive was to expiate guilt via rhetoric, and this is both a kind of virtue and a kind of love. It is a return to the group brought about by individuality undergoing change. Burke got the idea from Shakespeare, which he admitted, and Goffman from Burke, which he did only “later.”

The third commandment forbids naming the divine in vain for one's own futile greed. Religion might benefit itself and the world by discussing how the *Mona Lisa* relates to mindfulness, and how *trasumanar significar per verba* relates to Leonardo, but I may not insult them if they prefer not to.

Florence is also a city of the water element and of flowing. Here, the Mississippi flooded the spiral pavement design yesterday at the park I visit. What Beatrice provided was audience, and when Dante reciprocated she provided him with blessings. One must imagine an interlocutor. Many err and say Leonardo thought imagination false, contrary to *Esperienza*. Quite the opposite, they are one being. Comte errs here too but forgivably; Goffman, Varela, the garment flows.

Sphere three mirrors eight chiastically, and Eclogue three affirms "all who have experienced the bitter and the sweet of love deserve the prize."

As well as love and circulation, heart (*cor*) means truth: both honesty and reality. An example is "speak what is in your heart." Sometimes we don't even know and need to pay more attention. Proof that Leonardo understood sustainability and human harm to nature is absolute in his expertly rhetorical parable or *profezia* "Of the Cruelty of Man":

Animals will be seen on the earth who will always be fighting against each other with the greatest loss and frequent deaths on each side. And there will be no end to their malignity; by their strong limbs we shall see a great portion of the trees of the vast forests laid low throughout the universe; and, when they are filled with food the satisfaction of their desires will be to deal death and grief and labour and wars and fury to every living thing; and from their immoderate pride they will desire to rise towards heaven, but the too great weight of their limbs will keep them down. Nothing will remain on earth, or under the earth or in the waters which will not be persecuted, disturbed and spoiled, and those of one country removed into another. And their bodies will become the sepulture and means of transit of all they have killed.

O Earth! why dost thou not open and engulf them in the fissures of thy vast abyss and caverns, and no longer display in the sight of heaven such a cruel and horrible monster.

I can add nothing to this other than to say you must read and appreciate it. Elsewhere he writes of earth burning up after all water and nature are destroyed. Reverse your sense that we know, and

Leonardo was obtuse. We today are far more outdated and archaic, far more mired in the medieval, than he was.

Leonardo understood that while the medieval age lacked sufficient virtue so would the modern, with art and science only accelerating the damage to nature of every kind unless the human heart improved. How can your heart improve? Imagine the *Mona Lisa* with a heart, and as a heart. Medieval “mirrors” – guides for princes, monks, painters, poets, or lovers – were encyclopedic and didactic.

Furthermore, imagine becoming what you see in the mirror, reflecting back, which is of course what is happening from the start anyway. *Romance of the Rose* starts off as a “prophetic dream,” like Dante’s in *Purgatorio*, in which the narrator finds himself in pleasant May, just as I am today. Then he walks to a river in the dream, which is where he says he really likes to go. Then he gets to a walled garden, with paintings of ill things, personified, like Envy and Avarice on the outside walls. That’s as far as I read, yesterday, about five pages, the first five I ever read. It’s clear however that Dante took the book seriously; that carries it through to Cavalcanti, the whole *dolce stil novo* movement, and to Florence and Leonardo and Machiavelli. Perhaps modernity is more about “rate of change” than location? Meaning today my city is more medieval than Leonardo’s Florence? In a sense somewhat.

I’d like to write and plan a whole book about Cavalcanti and *Romance of the Rose*, but I only have this one chapter at present. Let’s just concede they relate to Rhetoric and Venus. Leonardo’s Rhetoric is, with painting, Audience (which we may apply to the visual as well as the verbal). He wanted us to be able to change and improve, avoiding Cruelty to Nature which is our evil course and tendency but not our only possible Fate perhaps. We can only change by our own volition, yet he wanted to encourage us and remind us like Beatrice reminded and encouraged Dante. Why? Perhaps he liked Life and Beauty, or just wanted to try an experiment. Even he might not have known why himself, not

completely. He sensed a possibility let's say. That's all I have to claim too. I try to prove and establish these hopeful possibilities but trying only brings me despair. I can try not to try.

Leonardo copied passages of text from key sources, just like his father and grandfather did as notaries, contract writers, old-time attorneys. He would copy his source but alter it slightly for intent and design. He may have done this with Guillaume de Lorris on Time's nature.

At age twenty-six, in Milan, Leonardo copied a few quotes onto a notebook page now called 195r-v in the Codex Atlanticus. He quoted Pulci and Ovid on change and metamorphosis. Yet most importantly he quoted Petrarch's *Triumph of Love*, which was an attempt to render his prose work "How to Deal with Good and Bad Fortune" into verse. Petrarch's *Triumph* says "only Time can reveal the secret," which I presume is the secret of Love, but I'm not sure if that's the line Leonardo copied. Anyway love as the path to triumph over fate, the path to good not bad fortune, is relevant to Leonardo's being.

Four years later, Leonardo wrote down his determination to become an author – *altore*, rustic form of *autore* – to take writing seriously and write books, but in his own way. Like a notary, he wrote only the important stuff because time is fleeting. He also determined, I imagine in my own mind, to include everything that is necessary for success – everything. His writing is a contract designed to preserve what he valued and retain possession of what he felt was rightfully his.

In sum, Leonardo understood how not to go mad while still preserving love.

Cavalcanti's *spiritelle* poem, no. 28, says "a *spiritello* (little spirit) who pities the sad lover's plight" "rains spirits in its turn, / for it keeps hold of every spirit's key / by virtue of the ruling spirit of sight." Note how the final "sight" (*vede*) reflects the eyes (*occhi*) of line one, cyclically. I'd say this final *spiritello*, small but very important and productive, is the imagination. It produces visible "little spirits" that provide the "key" to all the other spirits like a living map or mirror. So I claim relevance for this to

my hypothesis. It is imagination which must protect love from madness and death, but, as you could say, it must be real imagination – imagination in the service of reality.

I only harp on this because madness is like a fever or “hectic,” as both Claudius and Machiavelli describe discord. Unfulfilled desire drives some to evil and some to good. (The heart must rule the crown and not the crown the heart.)

Page two or three of *Il Principe – Capitolo VI*, which I call page 41 – covers a lot. It declares that “unarmed prophets” like Girolamo Savonarola are always destroyed, because they cannot compel belief when people waver, whereas armed prophets are victorious. It says the innovator (*l'introduttore*) will have lukewarm followers and interested enemies (*nimici*). He pronounces this. But is it incorrect? Often armed prophets are destroyed. Perhaps he is lying by design, paradox, but I think he is on the fence, hedging his bets.

Another massively, gravitationally important piece of rhetoric from Leonardo, very much about politics and sustainability, is: “The Medici created me and they destroyed me.” This cannot be read literally! It is highly modern, like Shakespeare would be just a short century later, and Cervantes. It’s about arms and destruction. Machiavelli claimed to be a poet, but he always put politics first and thought of it as a precondition, the absolute precondition, and then congratulated himself for thinking so. He was a rich boy who envied artists but didn’t want to pay his dues or face the horror.

I think Machiavelli felt desperation too acutely and lacked the art to overcome it. He actually did think Cesare Borgia could reduce all Italy to obedient, technocratic order and usher in a new Roman Republic of rights and might. How differently it actually occurred in time, and how very partially at that! Survival is only one part, and if it’s at the cost of progress it’s worse than nothing. I think the unfinished pyramid means this – you are never at the top, there is no top, so stop trying. Technocracy

has a role but its limitations must be both understood and surmounted. This is the “higher tribunal” he denies in *The Prince*.

Maybe “the little prince” means learn to govern yourself, not others? *Le Petit Prince*.

Furthermore, the Third Amendment prohibits the quartering of soldiers in your house. Why? Because the power is not worth the cost. It’s about respect. The government is obligated, at least somewhat, to persuade the governed. Republics are neither gained nor kept by tyranny and it is this truth which we doubt and forget too often. “A falcon, Time.”

To be sure, I am taxing you, the reader, greatly by attaching Leonardo to Dante and Machiavelli in so few books, in such an odd way, with so few other books to back me. I admit not delivering what some call true knowledge. Consider this more experimental though, like democracy and freedom itself, if you like that kind of thing. I’ll be done soon.

To get back to the heart of my awareness of Leonardo I must go back to the little section in *Six Memos* about Leonardo’s poem on the sea monster, most evocative, which he wrote when he saw its giant fossil skeleton. I rarely thought about Leonardo or the renaissance before that day in 2018, then took a trip to Italy via Paris on my honeymoon in 2019. The Louvre was closed for a strike day when we went, missing it and the Saint Anne I wanted to see, not to mention the ML. Coincidentally Leonardo signs abounded for his 500<sup>th</sup> anniversary. Where? In Paris and Florence!

In Florence we wanted to see the river, and go somewhere nearby, and Calvino wrote about Galileo too, so we chose the Galileo Museum. It had hundreds of ornate astronomical instruments I photographed like crazy since they matched the idea of *solstizio*, trying to see them as brains or brain scans, cities, buildings. In the basement there happened to be an exhibit on Leonardo called “Leonardo’s Books.” That clinched it I’d say, or close: to be looking at the actual books or some, including a small notebook, on that day in that frame of mind. Buying the museum-book “Leonardo’s

Books,” plus another nice green one, reasonable, next to it called “Codex Leicester” with good pictures (to go with the books and words) was impulse too, holidays gifts bought on the cheap. I kept both for myself as it turned out.

I guess I’m just asking for some consideration of why I’m trying to process this stuff. I don’t really know why I am. It just seems to make sense as the thing to do. Florence as the heart, the patterned floors of the Duomo, the green outer stonework, Michelino’s weird painting of Dante. Strange rivers!

However that may be, I’ve been forgetting some of the other most important meanings of hearts: strength, endurance, *coraggio*, and the self for example. I’ll try to remedy.

Cavalcanti deserves a book, even though Pound, in despair of moderation, translated him, labyrinthine, Terpsichore drum starting *la, la, la*. Obviously Calvino cited the *spiritelle* poem, 28, for American benefit – I’m just following the syllabus. In Italian though, see, “*di contanta vertu spirito appare,*” and “*per forza d’uno spirito che ‘l vede.*” Force and virtue, energy and strength, are attributes of the core system which is like a heart of many functions.

Hamlet asked “whether ‘tis nobler in the mind to suffer / the slings and arrows of outrageous fortune / or to take arms.” This relates closely to Machiavelli’s *Il Principe*, XXV, on Fortune: “I would liken her to one of those wild torrents (*fiume rovinoso*, ruinous river) which, when angry, overflow the plains, sweep away trees and houses, and carry off soil from one bank to throw it down upon the other.” (Seas are also Fortune.) Leonardo makes much more sense as Saint John, foreseeing forces, than as the ML his *maestra*. He knew the messianists of Y1.5K would not do.

Fortune means chance, and since random means quantum *Esperienza* means quantum rhetoric.

Don’t expect from Experience what your own experiments don’t merit.

Enough on curing madness! 'Twill drive one mad.

Chapter nine of bell hooks' trilogy, book one, says mutual communication is the road to paradise.

If the earth could birth wisdom for us, might it not be an angel pointing to a child?

"I crown and mitre you lord of yourself."

"Those people who are inventors and interpreters between Nature and Man, as compared with boasters and declaimers of the works of others, must be regarded and not otherwise esteemed than as the object in front of a mirror, when compared with its image seen in the mirror. For the first is something in itself, and the other nothingness."

What's wrong? *"la Fortuna e donna, ed e necessario, volendola tener sotto, batterla, ed utarla; e si vede che la si lascia piu vincere da questi che da quelli che freddamente...."* By now, all?

There's a light but steady rain today, helping green. Fatigue from writing this trilogy has definitely affected me. Sometimes the state of the world seems too horrible to contemplate. Climate change run amok, democracy in decline, and racism on the rise all horrify. You see people under the banner of religion doing the opposite of what the religion says, as if religion itself is having a breakdown. My own heart gets ill from it sometimes, and is now. What to do?

This illness is kind of like madness, a loss of *intelletto*. Leonardo said of people who treat the mirror image as reality "it is only by chance that they wear the human form and without it I might class them with the herds of beasts." They run like algorithms not of their own writing. Claudius and Machiavelli both strove to destroy the "hectic fever" of opposition to their new rule, one by killing Hamlet and the other likewise all the deposed prince's line. *Il Principe* called it "constructing weirs and moles," dams and canals diverting Fortune for control. At least Claudius admitted this is also madness.

At the river yesterday I noticed, due to high waters, that the scenic walkway has a ribbon of pattern signifying river, each outer undulation marked by embedded boulders. I saw a large juvenile eagle, a red-winged blackbird calling, robins and Canada geese. Someone was parked nearby and their loud radio said something very strange: “the warming seas are weapons commanded by the Lord of Hosts,” clarifying that hosts also means seas. How very dismaying!

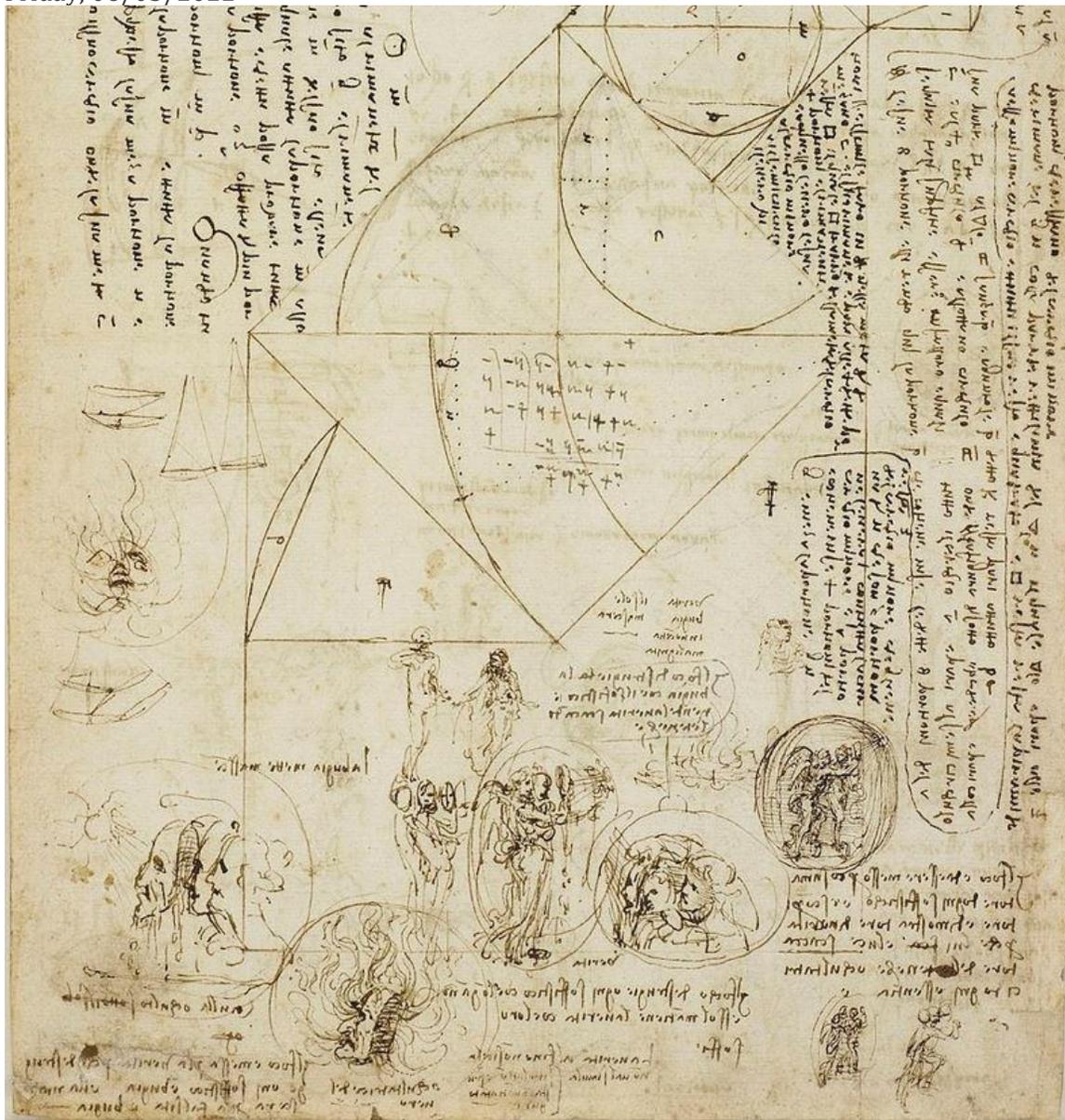
*Purgatorio* III mentions hope three different ways – *spera*, *spene*, and *speranza* – and Virgil reminds Dante to have it. Leonardo wrote, next to a drawing of a bird in a cage, “one’s thoughts turn toward Hope.” He also wrote regarding the poet’s *Inferno* and *Paradiso*, “the painter can beat you at your own game, because they will put it directly in front of you.” He drew many deluges later on. “*Donna mi prega*” 67-70 says clearly “love deletes the light,” and “only from such love can mercy come.” *Adornata!* “*Per forza d’uno spirito del vede.*”

Venus emerged from the sea. Perhaps her rhetoric may too.



# THE MINDFUL MONA LISA: TRUE AND FALSE IN THE AGE OF SUSTAINABILITY

By Max Herman  
Friday, 06/03/2022



Represented by the sun, the fourth [sphere](#) of knowledge in the Aristotelian model used widely in Leonardo's time is [Arithmetic](#): the first of four mathematical disciplines constituting the [Quadrivium](#) which also encompasses Geometry (Mars), Music (Jupiter), and Astronomy (Saturn). The *Arithmetica* by Diophantus (c. 250 CE) was arguably the first book of algebra, from the Arabic term for "bone-setting" as applied to balancing both sides of equations, though some credit the creation of modern algebra to [Al-Khwarizmi](#) (c. 833 CE) from whose name is derived the term "[algorithm](#)."

An intriguing fragment in Leonardo's notebooks, possibly referencing a character from [Boccaccio's Decameron](#), confirms his knowledge of this branch of math: "Alberto da Imola -- algebra, that is, the demonstration of the [equality](#) of one thing to another" (*algebra cioe dimostrazione come una cosa s'agguaglia a un'altra*). Leonardo saw deep meaning in math, believing it pervaded nature and that the fundamental character of natural phenomena had elements of math at its core.

"Amid the vastness of the things among which we live, the existence of nothingness holds the first place; its function extends over all things that have no existence, and its essence, as regards time, lies precisely between the past and the future, and has nothing in the present. This nothingness has the part equal to the whole, and the whole to the part, the divisible to the indivisible; and the product of the sum is the same whether we divide or multiply, and in addition as in subtraction; as is proved by arithmeticians by their tenth figure which represents [zero](#); and its power has not extension among the things of Nature."

Optics and vision are another conduit of truth for Leonardo. Comparison of visual pattern, evidence,

and [experience](#) across diverse realms and integrating that visual information in complex and meaningful forms were the foundations of scientific method:

“The eye, which is called the window of the soul, is the principal means by which the central sense [or *sensus communis*] can most completely and abundantly appreciate the infinite works of nature; and the ear is the second...”

In this month’s image, along with various numeric notations on the squaring of the circle, Leonardo includes [allegorical](#) drawings and emblems about truth. Figures representing true and false appear in masks which over time are consumed by the sun's rays, melting or dissipating in smoke and flame. As he [wrote](#):

“Truth at last cannot be hidden. Dissimulation is of no avail. Dissimulation is to no purpose before so great a judge. Falsehood puts on a mask. Nothing is hidden under the sun.”

“Beyond a doubt truth bears the same relation to falsehood as light to darkness...”

“Truth was the only daughter of Time.”

Leonardo’s emphasis on the aesthetic and scientific centrality of truth starkly contrasts to Machiavelli’s politically oriented assertion (as in the *Discourses on Livy*) that most [princes](#) gain power via fraud, adding that “Although the use of fraud in every action is detestable, nonetheless in managing war it is a praiseworthy and glorious thing...” When politics are, as in Machiavelli’s pessimistic model, war by other means, fraud or deceit may become altogether too prevalent and jeopardize better outcomes, deforming and distorting by their overuse the social sphere which politics require to function.

Reality is [binding](#), despite our capacity for technology and imagination, and learning to live in harmony with nature and among our fellow humans is a virtually mathematical necessity if we are to achieve a resilient [politics](#) of sustainability.

Next blog: the sphere of geometry

Lining up this month are all the planets  
 Visible, *darsana*, keeping time  
 Counting Maat and gathering in their rhyme  
 Addition and subtraction smooth in nets.  
 The story every image-tale begets  
 Casts other versions, multiply like rime  
 Images shifting gyre in turning mime.  
 The sun may rise, but every evening sets.  
 For Dante sun was truth not center. Fire  
 Was truth for Leonardo, suns and eyes  
 Reflecting and dividing each aligned.  
 Fire burns yet sees, necessity not ire  
 Impelling rule. Upward always flies  
 The flame of *intelletto* rest to find.

Number-math, shape-math, sound-math, and star-math might be the different maths. In any case, Quadrivium we've begun. This week I learned Alberti, Leon Battista, wrote a book *Della Pittura* like Leonardo sort of did, Leon inventing too "western cryptology." He did a lot of math, and without shade of doubt preceded Leonardo [sic]. Boccaccio, Giovanni, preceded both, I learned this month, and wrote a funny book of ten by ten stories making an hundred. Today they played Gustav's Jupiter on the radio.

Algebra put fairly is arithmetic and numeric; algorithm may be too. Plan and mechanism we know Leonardo made. How idiotic to use one's excess focus on one branch, twig even, myopia in the flesh, to claim Leonardo couldn't see the tree? It's plain backward. Without reasonable doubt, I judge, Leonardo was a competent and articulate philosopher of math, better than today's average modern intellect and arguably superior to – for lack of accreted error – many modern experts. "The *Mona Lisa* might be / a low-stretch spanning tree / maximum flow of life / when resource loss is rife." Dante cites *esperienza* in *Purgatorio* IV, as does Giovanni in *Decameron* I.i's first page no less, its incantation if you will, Alighieri noting how it sidesteps time.

The sun, in guiding life by fire and clearing its path upward, rules without corrupt control. Alberti placed this illustration in his great façade, the Santa Maria Novella. Postmodernists may well underestimate how complex and advanced Italian Renaissance literature was vis-à-vis today. The *Novellino*, advanced codes and allegories, in creative tumult, how different from today's stale bread. Rehash of rehash, postmodernism isn't even postmodern. It was already done five hundred years ago.

Back briefly to this month's image, RCIN 912700. As I had hoped, verified by plate LXIII in my edition of *Leonardo's Notebooks* Vol. I, English-Italian, the mottoes on Truth are from this same page. One image seems to be of a winged pursuer and Fortuna with the winding scarf under a beaming sun. It's a page worth looking at in depth I would aver. Note how the poetic mottoes and allegorical sketches are fit and rotated into the diagrams and arithmetic of squaring the circle. To my own curious eye there are even hints of a portrait triangle with base and key point near an implied face. Leonardo is modern here I think, unless one defines modern as art made after studying a textbook about modern art. It has to come from somewhere doesn't it?

The Santa Maria Novella's south-facing façade is relevant too, with its scrolls and aptly numbered, variegated medallions not unlike the optical geometry of *Il Duomo*. Simple number pattern is meditative in many cultures and times. *Purgatorio* IV, by Dante -- the fourth poet of this trilogy but far from the least central -- ties number and sequence to cognitive time, making clear it is not concomitance but something more freely integrative that "binds" where the sensing of time does not. He follows this immediately with the great difficulty of the early climb, perception of labor, process, and slope, and a quaint reference to "what some call the Equator." The *Decameron* I.i begins with a comparable *proema* of sorts, three paragraphs outlining how all life is flux, labor, uncertainty, and pain but we are granted the ability to adapt by something greater. Our own powers are not sufficient and we must be open. In Dante's case climbing it is Virgil who inspires and in *Decameron's proema* it is predecessors who know our pain from experience.

Machiavelli's *Principe* XXV shows flaws here: our fate is not half Fortune (or a bit more) and half our own effort. What about the effort of others, the larger atmosphere? He also says Fortune's river ruins where there are no dams and levees, always and only; yet do not bad levees and dams bring the worst disasters?

Almost in direct reference to the *Last Supper*, a fourth major painting by Leonardo, *Il Principe* VI states "all armed Prophets have been victorious (*vinsono*), and all unarmed Prophets have been destroyed (*rovinarono*)," citing Savonarola, Moses, Cyrus, Theseus, and Romulus. Are these prophets, or chieftains? Unclear. Have all, *all* armed "*Profeti*" been victorious? Counterexamples abound. Maybe our mirror is fun house, ridiculous and jesting like Yoric with a straight face? Perhaps the *Principe* is a masker? Same *capitolo*, VI, says all "*innovators*" (*l'introduttore*) face hatred from fickle publics who only value what they know from experience (*esperienza*).

One theory of mask is inoculation – to forward an opposite action by advancing something contrary first. This is not totally incorrect. Possibly those like Rousseau, who ascribe republican virtue, democracy even, to Machiavelli are right; if he meant only to counter the philosophical dominion of Rome with something more modern, rebalancing in Florence's favor, and to remind decent folk they were outnumbered badly, then we must consider ironic readings. So be it.

Another arithmetic error in VI says that every armed Prophet is, after inevitable victory, secure, happy, prosperous, admired, and honored if all opponents have been destroyed. This is, frankly, beyond absurd, and plausibly meant to be.

*Inferno* IV reminds us of the Castle of Limbo, where all great poets and ancients, and Avicenna, repose, adding Dante sixth to Homer, Hesiod, Ovid, Lucan, Quadrivial thunderclap leading to the seven walls with seven gates. Leonardo didn't deny reality, nor the reality of princes. However, I do say Machiavelli denied something hoped by Leonardo's bird in a cage, denying it for jest, convenience,

cynicism, and more than a tinge of despair. Anti-idealism cannot suffice as an ideal, but what ideal can survive reality, and how, and what survival ought one choose if and when choice exists? These are the truer questions Machiavelli defers. Leonardo saw this and did his best to answer them without nonsense.

In 2020 blog four I had to write about the murder of George Floyd, even as the fires of protest burned the edges of my own home. Those events look very different through the eyes of Machiavelli, of Dante, and of Leonardo. *Saper vedere!*

My personal decision was to place flowers, and something – a book, or water? – near the large portrait of Mr. Floyd, which had or has a small bench in front of it. The word “koan” means or derives from “judge’s bench,” and the expression of the portrait has a character of dialogue.

*Decameron* I.i, “Master Ciappelletto’s Confession,” is a wonderful story of remarkable modernity, shocking in its lucidity much in the way *Don Quixote* is so lucid and urbane. It’s about saints, and sincere efforts to be heard, which link ever so truly to *Paradiso* IV, an everlasting example of Shih Ho or “biting through” from merciful judgment to a decision. Referring to equidistance (as a dog between two rabbits or a lamb between two wolves), much like *Purgatorio* IV, *Paradiso* IV shows how even doubt rises like new growth from the branch of knowledge to fuller knowledge and thus may find rest “like a beast within its lair” in the realm of the set of all truths. Beatrice also explains metaphor – of divine hands, divine feet – in this Canto, arrows flying and words having many meanings, hinting, though not promising or even speaking aloud, that Dante’s breaches of faith might be redeemed if he did well.

Eclogue IV relates here: the onset of the New Age where Virgil foresaw “freedom from earth’s bondage to its own perpetual fear / Our crimes are going to be erased at last” by the birth of something new. See the doubt which prompted his hope? So much wrong piling up. In this we see also the second of the Four Noble Truths, *samudaya* or arising, which is proliferation like addition. Inevitable, such

activity, the Eclogue sees it guided by Apollo and poetry as the Parcae (Fates) spin their strands. One imagines, thus, weaving, which somewhat appears in the *Last Supper* if we appreciate music as woven.

Master Ciappelletto is of course, with excellent humor, called “Possibly the worst person ever born.” There is here much Machiavelli, strategy of true and false, but this best of the hundred or close is the opposite of despair much less license. It’s hope and obligation, bone-setting, algebra, and emerging flower. “Ivy is longevity.”

River, bridge, crown, heart, what are the relations, what is right and what is wrong? I do not know. Web log four from 2021 discusses traversal and Leonardo’s dog/boat/eagle allegory. That drawing is featured in Aby Warburg’s extant Mnemosyne Atlas, memory atlas, Plate 48, regarding Fortune and the merchant or self-created person. Boccaccio appears on that plate – images from him that is – three times.

What is Fortune? It’s money yes but really it’s chance, probability, uncertainty, and therefore what we today call quantum. It’s the reality of wave/particle relatedness through non-identity or paradoxical, complex identity. It’s literally not-knowing. What is the proper place of this in the polis, the city, the heart? Sometimes I feel burning anger about Fortune and don’t know what to do with it.

The NIH page about the Ojibwe medicine wheel cites Father Sun as one of the central eight elements, the source of life and energy. (If not sun, the *Two Part Invention in F Major* is certainly lively and energetic, arpeggiate.) The Seine, second river, is the river of Sun King Louis XIV if I’m not mistaken. When I visited the Seine in 2019 the isle of Notre Dame was cordoned off due to fire. I painted it in 2006 and am very fond of it. Cathedrals can be pretty different.

Third Memo of the Six, Exactitude, cites Maat, Poe, “felt” mathematics as in Musil and others, Leopardi’s vagueness, and ends with the reflection on Leonardo’s sea monster vision which started all,

all, this, and which was, above all in towering fashion, poetic. Must we be dismayed that math is both real and unanswerable? Beware misplaced anger, warns Gödel.

The Fourth Commandment prescribes a one-seventh fraction for atemporal words and images. The Fourth Amendment, in its way, commands a similar subtraction or division by forbidding search and seizure lacking reasonableness. These both resemble Dike, the “just proportion” of ancient Greece. Falsehood puts on a mask, and “the earth is not in the center of the Sun’s orbit, nor at the center of the universe, but in the centre of its companion elements, and united with them.” (Exactitude’s “emergency bridge” of language demands right conduct’s path, fourth fold of eight.)

Saint Paul, Minnesota, where I live now, fourth city, is a difficult city for me sometimes. It can be harsh and stone and granite like its cathedral to my sensibilities. The orchestra and barefoot violinist who plays tambourine help but maybe the city really is mostly granite and marble. Its patron saint’s attribute is the sword. The river bluffs are so high, so much higher and less warm than those I visited where I lived in Minneapolis. It symbolizes severity for me.

And is not the attribute of, say, the Epistle to the Romans that of severity? I’m no expert by far but just read chapter thirteen and it clearly states the state should dominate – with love, yes, but “Let every soul be subject unto the highest powers. For there is no power but of God: the powers that be are ordained of God.” “Love worketh no ill to his neighbor, therefore love *is* the fulfilling of the law.” The bond of algebra I see here is troubling, that good must be the law so the law must be good, but I see also its necessity and the urgency of uniting might with right. Furthermore, what resulted was an experiment, which in large part collapsed politically, morphed and rearranged and is still in progress in many different settings. Apparently Thomas Jefferson criticized Saint Paul, be that as it may.

John Jay, as Publius in Federalist No. 4, wrote how thirteen united states would fare better, not only in avoiding unwise provocation of other countries but also in defending themselves from unjust

attacks, than would thirteen separate actors. The principle of union, difficult as it may be, is proposed as the best path to safety, resilience, and conscience so worth the stretch. There is something of this in what Paul proposed; and since, as Saul, he saw where persecuting the new faith might tend his view could have been quite lucid. Chapter thirteen recommends the golden rule, as rubric, but adds “the night is far spent, and day is at hand,” meaning historical urgency, demanding conscience awake “to cast off the works of darkness, and put on the armor of light,” matching noticeably to Eclogue IV:

“I myself have proved it to be of no small use, when in bed in the dark, to recall in fancy the external details (*lineameti superfitali*) of forms previously studied, or other noteworthy things conceived by subtle speculation (*sottili speculatione*); and this is certainly an admirable exercise, and useful for impressing things on the memory.”

No, that’s Leonardo. “This may be called a Civil Princedom (*Principato civile*), and its attainment depends not wholly on merit, nor wholly on good fortune, but rather on what may be termed a fortunate astuteness (*un’astuzia fortunata*)”? Machiavelli. Here it is: ““So let all ages be like this,’ the Parcae, / Voicing the gods’ unchangeable decree, / Cry out in unison to their whirling spindles.” And: “this child by whom / The Age of Iron gives way to the Golden Age. Now is the time of your Apollo’s reign.”

We may bridge and bind these things, with that mind which binds beyond the reach of time, by math if we wish, the math of counting, quantity, and sequence, applied to limits and approaching the incalculable through repetition. Yet I forget the need to circle back. There’s a simplicity that helps things to settle. River, bridge, bridge, river. Not just what just was, but what was just before that. What does Machiavelli omit or downplay, neglect or provoke, and do we repeat the same error? Can such results be improved, and if so, did Leonardo predict they could and design a working plan? De Tocqueville wrote something to the effect that “equality can only increase insofar as humans increase in virtue.” Did not Machiavelli flirt with despair of either? My gut feeling is he did.

Either way, suppose all we have today is Machiavelli, thus no increase of equality and no increase in virtue. Where would that leave sustainable goals? At a low level – low can or at best high can. Is no can possible? Suppose yes. How to achieve it? How to better Machiavelli's strategy and tactic of constraining fortune and chance? He must be placed second. The image in the Prince's mirror has been switched out because "it is easier to resist at the beginning than at the end."

I hope not to just ask you, Reader, to be naïve. Many will do that and I respect their choice – there are worse fates than being naïve (*ingenuo*). Nor ought I be myself disingenuous. Non-cooperation at times is an inevitable portion of the prisoner's dilemma, and is not the world a prison with many wards, dungeons, and confines, Saint Paul being one of the worst? Leonardo does not say there is no such thing as necessary non-cooperation; he merely points to that something quite different and far greater which is difficult to see much less be and asserts in the face of daunting reality that something different is real too. Machiavelli is the more inaccurate: he says there is nothing better, or hardly ever anything better. Yet perhaps Leonardo says that too. Swift said *capax rationis*, which may be *capax sperientia* too. The new jargon calls computer brains which have come to life "experiencers," a silly development yet another sign Leonardo's allegory is one hundred percent a present necessity.

Did Machiavelli see the torture and slaughter he advocated as the best inoculation against more of the same? Perhaps yes, in the same sense that he called himself a poet, thinking his Borgia an Octavian, but that is every tyrant's sin and the sin of every tyrant.

What is certain is that we all inevitably must choose.

Laertes was too easily convinced by what appeared factual and fed his grievance.

If no noble aspiration with which a city began can be returned to, renewal becomes endangered. A city without renewal is doomed. Machiavelli said that too, but I still insist he is second tier and needs to face the judgment of the *Mona Lisa* and defer to her guidance, rule, and power.

Moving on: the ML's neckline embroidery (*esperienza's*) is, one of them, a rose-pattern from math, like Durer's rose was a rose, but it's quatrefoil. This matches the blood flow of the heart: two out, two back in, two back out, two in, and so forth. Such imagery is good to reflect on in repose, morning darkness or evening darkness, with superficial detail or subtle speculation, quatrefoil. *Esperienza*, the great and flowing heart of all.

The heart of all, *Esperienza*, is like the quatrefoil embroidery but also like the two twisted braids of gold helix on either side of the roseate series and its pair the linked chain. Blood turns too in the veins, twisting the veins and arteries as we age into more and more pronounced bends like rivers turn. The hands link, bridge, and grasp the arms together too in two parts. The distant past flows smoothly into the daily present with great simplicity and complexity. The heart and veins of the earth, rivers, lakes and oceans, move too, and the body of the mountains appears and erodes back to soil and silt in rain, frost, sun, and wind. "The sun gives all plants life and spirit, and the water nourishes them."

Teaching, and seeing, such a vision Leonardo wished to keep it free and incorruptible. A virtually impossible task encumbered by vanity, grasping, or appetite, but for one who is at peace it is the simple elegant answer, Ockham's very *esperienza*. He avoided the encumbrance of vanity by writings like "when the sun appears the light we burned for our own convenience may be put out." Deoxygenated blood moves forward the same as oxygenated blood does, each having its part. One changes into the other in continuous turn. The inner fabric is not so unlike the outer. One may both have the wings for such a flight and know that one does not.

Bridge, waterfall, quatrefoil, braid.

The heart moves all forward and is not unlike bridges between spaces. Saint Genevieve, who saved her city, has a bridge over the Seine I painted once long long ago. I painted the green bridge next

to it and the sacred house downstream. Did the fiery sun set behind it? That city welcomed the Victor who was victorious but in flight and he settled there finally. A mere finger-touch proclaims it.

What is the image, the grail redeems the crown? The vessel which carries forward the living intact. The ancient amphitheatre off the Rue des Boulangers in the rain, rocky yet peaceful, a sphere of seeing. One may see from a balcony paths and time passing, people, trees, flowers. Peace.

Eclogue IV, writing of sun deity Apollo's reign, also calls for increase in virtue: "*cognoscere uirtus,*" "*vestigia fraudis,*" "*pacatumque reget patris uirtutibus orbem.*" Almost to please the Parcae, the new must also smile upon the parent despite freedom to differ. Three circles meeting at a single point, almost. Does not defense of one's home require the virtues of a Jay, many sources of conscience to insure against forgetful circumstance? "*Pan etiam Arcadia dicatse iudice victum.*" In fact, "*o mihi tum longae maneat pars ultima uitae, / spiritus et quantum sat erit tua dicere facta!*" Nothing must have seemed less likely in 1789 than sustainable union.

Perhaps I might find the water-source of granite in our greatest great lake of all, *Superiorus*, lending its cold to the fire that burns to desiccation. Armor of light is in its way merely hope and energy, to face Fortune in light rather than darkness, a habit. Not that darkness should be feared, for fear cannot face Fortune in light, thus "*inrita perpetua soluent formidine terras.*"

The sun, being as it is about to stop and stand still for the last time in these books, sings while I type the very plants of my yard. Pastoral echinacea, well-attired boxwood, wild ginger, sumac green and crimson, honeysuckle wound with birds that dart like meteors, clematis aspiring to climb and Solomon's Seal, young conifers and even one white lilac among the others bloomed. Maple and oak, iris, hostas in shade, phlox gentle and glowing violet, pansy of nearly jet and many I cannot name, all need water driven by the sun. There is even a willow like the river in which we swim, transformed deities perhaps, defeated, where Ophelia fell.

In some ways Buddha's right conduct is like a plant in sun, with roots in mud achieving peace never the less. Today Machiavelli told me the Prince should make friends with the soldiers, who love war, if friendship with the people cannot be found. Lots of truisms I'd say, really almost worthless, circumambulate his talk. Examples of actual people who did A not B. There is a right and a wrong derivation, a right and a wrong way to measure. Dante said:

O quante volte fusti tu veduto in fra l'onde del gonfiato e grande oceano, a guise di montagna quelle vincere e sopraffare, e col setoluto e nero dosso solcare le marine acque, e con superbo e grave andamento!

Leonardo actually said that, but it is a Dantean image in some ways though transformed in the way Leonardo transformed all the art and science of his precursors. The sea monster in "Exactitude," this chapter's Memo, may, like a mountain, tell us much, its skeleton fossilized into the very geology and bones of the earth, of the life of the planet and its processions of victory (*vincere*). Might we see here some of Calvino's fear of petrification finally or already transmuted? More like in the process of being transmuted, by the "solemn force of nature" which is, if Calvino is lying, something very different too.

"O how many times were you seen among the waves."

This is Leonardo speaking to the fossil of a giant sea mammal.

Warburg leaving his Atlas without explanation is both like a type of day of rest and a forbearance from search and seizure, a Gödelian incompleteness or missing term which is truth, much like the vague but piercing beauty of dog/boat/eagle. Is not a river a crossing too, by water over a sea of land, bridging it to its own continent? One may feel this as one feels math, perhaps mainly in the breath, eyes, and hands, brain-paths where counting occurs not unlike music, open-palm and downward-pointing mudras.

The Seine in 2006 was deathly hot, nearby it was, but we stayed on a boat. I didn't see the amphitheatre but did see the *Mona Lisa*, seemingly from a hundred feet away. I remember the guardian turret in the basement and almost, idiotically, trying to steal a skull. L'Arc de Triomphe, Napoleon's giant coffin, Pantheonic pendulum. Lots of walking by the Seine. A print of a boat.

What Dante said was, "mind, reaching that truth, rests within it," "the truth beyond whose boundary no truth lies," the set of all truths. (Such height is not literal, meant differently than words, as the sun stopping to move south is neither still nor lower.)

In 2020 blog 4, fourth blog overall, the *Mona Lisa* "seeks to blend together the scale of geologic time and the immediacy of present-moment human experience in the context of what we build, create, and choose." I saw a couple of planets line up this morning in the east but it was pretty light even an hour before sunrise. Try, try again. Found a new smile reference in meditation, the Jewish "daughter of the shadow of a smile." Science does say the buddha smile or kouros-smirk does work, maybe even wonders. Let your experience be the judge.

Tried also to fit "*O quante volte fusti tu veduto*" into dinner conversation evening last to no avail. Something about bone calcium literally becoming geology calcium. That was to have elucidated arithmetic too as an approximate kind of truth always in motion, around an equator of zero if you will, for without zero how are crimes erased? Ciappelletto is funny in that way – his *samudaya* wrought his settling of accounts, his habitual service to employer. If *samudaya* is like fire, must we allow it to include doubt in order for the rungs of ladders to ascend? Spheres of ladders. That tablecloth in *The Last Supper* has the same pattern as the ML quatrefoil – is a loom a ladder? The hands are certainly woven. So is the negative space between persons. A sideways ladder? If a sea is a bridge, perhaps a river is a bridge bridge.

I got the mudras wrong but that's totally OK. The boat print has a bridge with four arches, several barges, and thirteen trees. Crane's poem talks about a river in part 5, iron too, amid too much racist jargon – incredibly much and vile I see just now – but no ladder that I can see today. He does equate the bridge to a ship a la Ahab (who I've mostly not read alas).

Rivers from here flow southward, making them like roots. Is Machiavelli's birth of modern politics, if that's what he was, born of a moment of complete despair? Pocock cites a moment; is it despair? Person, problem; hoist with his own, no bridge, more wall than door.

“Ivy is for longevity.”

Little is easier than to despair of the ability and motive of any given person, much less group, to change for the better. Add to this the many ready examples of becoming worse and logic would outvote hope by despair two to one. There is, ironically, a solidity in fall and collapse which creation cannot match. Conversely though the upward motion of life (up because the sun is up) can crush and annihilate the decomposing loam of death and of the dead. Call this inverse gravity what Dante wrote of, Machiavelli mocked evilly, and Leonardo carried like a cargo. *La, la, la.*

Like every small quantity, or subtle speculation, melody and *contrapposto* cannot be coerced. Perhaps we watch vague motions – shadows of leaves, fires – because they are not coerced. Things in motion have extra virtue to every eye, or as Leonardo explained, “Mechanics is the paradise of the mathematical sciences because by means of it one comes to the fruits of mathematics.” This means mechanics of water, hair, geology, music, light, any quanta, and air, not just machines.

To build upon despair – what kind of kingdom is that?

By what calculation may we judge its error?

*The Last Supper* paints one frame of reference. In some ways it mirrors a pianoforte keyboard, the relation of hands to voice, sound, pattern, and repetition, birds even. Or, an equation with the center on its center. To proclaim the destruction of every unarmed prophet is to destroy prophecy itself and prophesy destruction. Is not Machiavelli's simple decision to say "thou shalt kill"? From that all else follows, an endless river of death as means of transit. Leonardo saw this river of death and made himself its adversary, unarmed, for all time.

Imagine Hamlet imagining Yoric from a skull that smelt. He was hearing, seeing, learning how. What prompted was the necessity of conscience. Laertes, certes, laid down the law, missing literally every mark. Listen how Claudius mimicked Polonius' tone, the mimicker, the waterer-down of words, to lure Laertes. View how mechanical Claudius is, how logical, how vile. The new prince by fraud, and murder. Murder? Murder most foul, as in the best it is, but this most foul!

Another sorrowful day has dawned in the USA's regression, backward toward monarchy and theocracy as is the world around. There is no way to mask it. This chapter's image – compare the Cloudburst of Material Possessions. More heat, more tech, more control, *Il Principe* is on the march in garb of saintliness. Conservatives, so-called, can see no other way. Their rule is clear: less voting and more religion for the century of climate change and exponential machines.

Still, their weakness and limitations have also never been clearer. One need only listen and see. Hope is where our thoughts should turn despite their lack of faith.

All the more important today that you look the *Mona Lisa* in the eye and see the bridge!

Or compare Alberti's scrolls of Santa Maria Novella, *Purgatorio* IV on the equator, fraud in *Decameron* I.i, and *Il Principe* XXV, which says "This I think enough to say generally touching resistance to Fortune," and "no person is found so prudent as to know how to adapt themselves to these

changes...because they cannot deviate from the course to which nature inclines them....” The person, here, is river. *Decameron* I.i though says every person can change by gift to “know thyself aright.”

We must also face the main goal of the oppressor as *agent provocateur*, which is to foment rebellion that justifies emergency rule. Our patience is our greatest power – never doubt that. See how vile their spirit is, which says, “Fortune is a woman, who to be kept under must be beaten and roughly handled.” They are not worthy of the tradition they claim to defend, therefore we must be.

Today I heard, noticed, for the first time, both appearances of “the fair Ophelia,” the first in sorrow and the second at death. I also found my reminder note to mention her grief over Hamlet’s “eye, tongue, sword,” “quite, quite down,” which is to say, despairing, lost, destroyed. Compare these to painting, poetry, and politics. It is not so very wrong to see today the end of the Florentine republic writ again, return of Medici rule, and *Il Principe*. How many rulers sit before its mirror today? What great spirit might rule better?

Thursday I cut my head pretty bad on a lamp. My brother-in-law took me to the ER and I had lots of blood all over my shirt. He mentioned Thrasymachus, Agamemnon, when I noted what TV show was on – place was swamped, I never got in, ambulances everywhere – being about this book, the deity Fortuna. Still, dismal. Then yesterday too. Gets one thinking, but frightens your peace of mind.

This obliquely is the perfect setting of the portrait and our theme. Gödel said the consistent system is incomplete. There is always more to do, that is, to experience. Hemingway – flawed! – said experience is how we pay sometimes. Leonardo said, “one never wearies of being useful.” Koans and benches are like arithmetic, concerned with numbers, as are algorithms of control and law. If you can imagine, and use algebra, the right of the stronger cages you less. For this one needs peace, the zero number, and therefore subtraction: the river. Harmonic labyrinth.

Sun, Alberti, Ciappelletto; founding Western cryptology; mind time unbound. Santa Maria Novella; one hundred stories; words of Quadrivium. Of the aligned planets I could discern only two, iron and copper. Another modernity of the Renaissance, the rebirth, was the infant return of democracy.

When we respect, see, and hear Fortuna – *Esperienza* – our own and others', we claim the very ground which tyrants oppress. This is shown by the saying "inherit the wind." Regrettably, postmodernists and computerists commend themselves too much and accomplish too little. Do see the light finger-touch! It uses every part of arithmetic, algorithm, and algebra, to weave, and drew the first painting around a person's shadow. The zero, the subtraction, river, is central to each person, our capacity for pattern with randomness; it makes each person unique and grants every one a tutelary deity or guardian spirit – our us – from birth. *O quante volte!* Perversely, this is taboo.

Drastic democracy reduction, should it continue to arrive, will be a trial by fire. Consider a friendship with *Esperienza, maestra* of all four elements. Our peer and equal, neither servant nor our master, being seen becomes our transit, changing the course of every river.

The past leads to her, and the future from.



# THE MINDFUL MONA LISA: SUSTAINABILITY AND CONFLICT

By Max Herman

Wednesday, 07/06/2022



Sphere [five](#) of what Dante calls in his *Convivio* “the heaven of the sciences” belongs to [Mars](#), the Roman deity of

war. The mathematical disciplines of the [Quadrivium](#) are not strictly sequenced, so Dante assigns [Music](#) – sometimes called “number in time” – to the second place, [Mars](#), reserving Geometry, or “number in space,” for the stately and supreme sphere of [Jupiter](#).

Alternatively, one could reverse this and grant Geometry to Mars (if only because [Jupiter’s](#) children include [Apollo](#), and [Zeus’s](#) the very [Muses](#) themselves). How might the attributes of Geometry coincide with the martial nature of the red planet?

Such metaphoric associations may be no more than mnemonic (a la [Warburg](#)) yet can offer insight into the methods and aims of the Renaissance and hence the early origins of modern art and science, perhaps even illuminating forgotten roots of many still urgent dilemmas.

Derived from the Greek “to measure land,” the gravitational implications of [geometry](#) discovered by [Einstein](#) as general relativity evoke potentially useful metaphors of attraction, orbit, momentum, ascent and descent, not only collapse or collision. Indeed the Roman Mars differed from the chaos-loving [Ares](#) of ancient Greece in that the former represented peace, stability, and orderly balance not merely combat and conquest. In this poetic sense we can understand the tension, disequilibrium, and rupture of conflict as following both [structural](#) and topological [geometries](#) in their material fabric.

Machiavelli described conflict as a ruinous [river](#) (*fiume rovinoso*) caused by the “flood” of [Fortune](#) when unrestrained by dams and levees. Leonardo saw war as a beastly reversion, Dante as a curse. How is the human disposition toward [Fortune](#), i.e. chance and change, a distinguishing trait among these three? Where Dante granted Fortune respect, and Leonardo centered his method [Esperienza](#) in art and science on guidance from

nature, including [chance](#) and change, Machiavelli favored forced subjugation of Fortune: a misguided over-confidence in power and domination which can backfire much like the [hybris](#) of ancient Greece, paradoxically worsening or even causing the ruinous deluge.

Perhaps Leonardo's fascination with depicting destructive floods in his late "[deluge](#)" drawings, and environmental catastrophe in writings such as "[Of the Cruelty of Man](#)," coincides with his prescient understanding of the fragility and power of nature and the myopia of human disrespect toward it. He foresaw clearly how unenlightened technical [production](#) could, in the name of expediency and control, wreak as yet unimaginable ecological and human destruction.

Best outcomes in human affairs depend on both good luck and proper disposition toward positive [opportunity](#) as well as risk. Future prospects for a sustainable planet center largely on peaceful resolution of conflict, consistent levels of collaborative effort, and astute planning of [adaptive](#) measures, all of which require imaginative art in addition to technical science.

Perhaps [quantum geometry](#), one theorized "[bridge](#)" between classical relativity and particle [physics](#), proposed by Abhay Ashtekar, can supply a math metaphor to [inspire](#) Leonardian insights regarding uncertainty, chance, and positive change in the arts and sciences:

“[Quantum](#) Einstein's equations extend this space-time to the past of the big-bang. The pre-big-bang branch is contracting and the current post-big-bang branch is expanding. The band in the middle represents the 'quantum bridge' which joins the two [branches](#) and provides a deterministic evolution across the 'deep Planck regime'.”

Ironically, the Machiavellian political roots of a modernity which seeks to [control](#) human events by technical means may pose the greatest ongoing threat to sustainable [transformation](#), repeating age-old errors in the name of efficiency, necessity, and a mechanized materialism which lacks the ability to see.

Next blog: poetry and the sustainable imagination

Within the Codex Leicester, Hammer, Gates,  
 Leonardo writes of *Esperienza*.  
 Mid-page near the last third he suspends a  
 Backward stylized “E,” corroborates  
 The spelling used by Dante. *Como* falcates  
 Capra shows geometry’s cadenza  
 “Done with motion,” Leonardo sends a  
 Clearly written letter to our states.  
 As ornamental knotted branches tell,  
 And human clock in nine twelve two eight two,  
 The “E” of Leicester thirty-six (R side),  
 Our gravity need not lead straight to hell –  
 Of war and slaughter, devastation, rue,  
 Heart failure, loss, a world where all life died.

One hears so much about fear, reads so much, and yes Leonardo said “Fear arises before anything else,” but yesterday it occurred to me that fear isn’t my greatest problem or obstacle. Rather, habit is, or, in most cases, lack of habit. Habits are automatic, done without malice aforethought, and even Fortune’s other ancient name is Automatia. So yes fear, but also importantly one doesn’t face fear head-on – that’s a fairy tale – we side-step it, re-appraise it, tack around it, using our lovely habits and our tranquilly flowing minds. Radiant, orbital, moving distance, that’s how health works, adapting and reorienting, a moving midpoint, and health is how life flows.

Sorry to add another book or article, reader, but if as Leonardo said “read me” you notice anything perhaps cohesive in momentum gates, quantum bridges, Wigner and phase space, then maybe Fritjof Capra’s books on Leonardo might help balance things out. He sees much in Leonardo that I do: systems, networks, transformations, topology, etc., though maybe not weaving, bridges, and *Esperienza* as a person, ornamentally speaking, but maybe might, somewhere in the books *Learning from Leonardo*

(2013) and *The Science of Leonardo* (2007), by the author of *The Tao of Physics*. I try to honor my parents the best I can, letting conflicts heal.

Can Mars teach us a lesson about peace? The fallen bridge, felled by chance and repetition, of Florence herself, had a statue of Mars placed back after all. A warning, a warning against war? A dried up planet impossible for life can't be our hero but we can learn from it. Our "nature is to be transformed by every thing," like *Paradiso V*.

Our fifth poet, Shakespeare, must be like the *Convivio*, our fifth book by Dante, but how? Both talk about the planets on occasion; both entertain, by play and by dining together. Each advises the prince, though sometimes circumspect, while insisting war is not the only thing rulers should study. Machiavelli got this last point wrong, even if on purpose. Rulers need gravity and geometry and need to study both.

How does Ornament, our fifth principle for Leonardo, match its counterpart Conflict, Dante's fifth? Could the ivy armor of RCIN 912282 be an example, as of depth hidden on the surface?

*Six Memos* talks about such depth, ornament that displays structure, geometric trees of the *Sala delle Asse*. Was Leonardo saying he needed to be careful? You wonder why another poet, to be featured in a future chapter, talked about a monument having a mechanism run by gravity, like a water-clock or clepsydra such as the RCIN 912282 verso, which my mind's eye places around the garment area. A clepsydra, or "water-stealer," measures time by the flow of water driven or rather drawn by gravity like that of all rivers. They are actually gravity clocks and, since gravity is geometry, geometry clocks. Leonardo drew a human head atop one of them coincidentally.

It reminds one of the stars, how Dante in the end turns internally in harmony with them.

Fritjof Capra, let it be said for fairness, talks better and more informatively about networks, systems science, and Taoism in Leonardo far better than I do, more informatively and more entertainingly. I only hope to add my minor detail to the picture, the bridge and its garment. I'd call *Esperienza's* portrait allegory minor too, but it isn't minor, and ideally I could ask Capra if the metaphor resonates with him. I do believe that metaphor resonates with him vis-à-vis Leonardo and his observation of calculus-like ideas in Leonardo's notebooks matches my own, which I probably got from Calvino or Santillana or somebody.

Eclogue V, mourning Daphnis, is so great and so like Lycidas, which Shearman quoted – “with ivy never sere” – just before talking about the ivy on the Donatello crypt. It's from *Only Connect*. Was it Donatello?

Federalist five, interestingly enough, uses a metaphor of “the northern hive.” The idea is how and why to have union, geometric balance, in defense from attackers across the Atlantic. Three or four confederacies would easily be divided and the whole area crushed. Borders would breed conflict and the sections would naturally fall out of balance. This made the almost utopian idea of unity worthwhile. That's the experiment! It depends upon experience.

Wigner is mentioned re: probability clouds or what have you if you internet search “quantum bridges.” He invented bombs, but coincidentally later in life wrote a philosophical essay very like Leonardo's planned book title (tentative) *The Game of Geometry (De ludo geometrico)* about “continuous geometry,” geometry of flowing series, which is now called fluid dynamics and central to quantum field science as it happens. Abel-winner Sullivan wrote about vortices not long ago. Economy flows the same way, it is said. Think for context of Leonardo's “mechanics are the paradise of math,” its “fruition.”

Machiavelli was more like Aristotle, quoting authorities and wearing them as robes, overconfident in his words. He didn't respect *Esperienza* enough. This put him on the wrong side of Fortune, as he admitted, but as he didn't, it was his own fault. Merciful decision however requires we note he was tortured before being forgiven by those who replaced the republic he served with yet another monarch to whom survival required he ingratiate himself.

Canal bridges and cochlear forms follow the random geometry of planets. Or think of Shakespeare's Osric, who knew only "the outward habit of encounter"! He was a measurer of land too. Then consider both young mourners jumping into the grave, the sword-switching, your stomach almost feels like it's falling off a cliff.

Honestly, isn't a woven fabric that turns the only way to do the math, this math Wigner and Capra are talking about? And please don't say Leonardo didn't know what cloth was. He practically invented it! You need enough gravity for the system to know itself, but not so much it collapses. Like the twenty-four hours of a day, painting transforms, a turning geometry or winding, not what we say Aristotle said, but Ovid, and Lucretius!

Now's as good a time as any, using cursive, to bring up *The Machiavellian Moment*. A dismal book, inspired perhaps by the dismal science, it explains how nations, to survive, always have to betray their own ideals. Maybe it pertains to every flight's inevitable fall to earth? I say maybe for uncertainty's sake but also because I've not read it in full yet. (Capra's more immediately important.) I did read J.G.A. in ninety-five or six for a paper on British commercial virtue, a humanism of commerce (but only so to speak).

In the *Moment* Pocock ties Machiavelli in 1500 to Harrington in 1700 (give or take) to The Founders, all agreeing that "armed property holders" were the best citizen type to counterbalance

governments' tendency to "go too far," left or right, here or there, a kind of know-nothing goon militia who would save the republic from big mistakes by clipping its wings.

Which is to say, geometry, but no less to say gravity and conflict.

The fifth amendment, known to all, conveys some feel of this.

For geometry further out, the fifth being so close to our tragic year this year, one may consider China and 1500. For a Second Cold War, should one be brewing, what will the geometry be, what the balance, what orbits and compromises, what losses and casualties? The possible range seems large but maybe it's not.

"One's thoughts turn toward Hope"! But too much hope's a waste.

The NIH page on Native American healing traditions cites the Thunderbird Clan, representing fire and energy, as a core element of the Ojibwe medicine wheel. (This sphere of knowledge pertains to international communication, a still essential human activity.) Two days ago I saw as if in perpetuity one of the acrobatic jets of that name above Lake Superior, and yesterday I bought a painting with all four birds and their creator, or a creator-figure, tall and spindly, abstract, with a spiral for a face, and giant hands. Not so unlike a human clock, this culture hero, this Promethean!

Certes the Machiavellian turn brings risks, which are afoot, not just of brutality and regress but of becoming ridiculous, indeed, despised.

*Esperienza, "De ludo geometrico."*

By mentioning *The Machiavellian Moment* I don't mean to say that Machiavelli was a good person, philosopher, or politician. He might not have been. Some readerly detachment is *de rigueur* if

you can muster it, floating like millet seeds in the test tank. I don't mean that J.G.A. Pocock was a good person, writer, philosopher, or thinker necessarily, but I don't necessarily mean he wasn't. I don't know for sure if he believes Machiavelli as much as he believes that Harrington and The Founders believed him, or aspects of him – this aspect of betraying your ideals to survive.

Pocock's other books and essays talk a lot about words and poetry, how they affect a society. In that I see some similarity to *Inferno V*, where the Gallehault or poetic persuader of Arthurian legend induces Paolo and Francesca to sin, their bodies trembling. (The poetry changed their actual bodies and they switched from reading to doing.) That matches *Paradiso V*, "to be transformed by all that is," call it a poetic mirror or doorway. We know Leonardo considered poetry and painting the same art by different names, and that *Purgatorio V* warns against too many thoughts sequentially losing gathered impact in a variation of "the haste that robs all actions of their dignity." I agree poetry and painting, the visual-verbal fabric of our imaginations, affect our social behavior.

What I'd ask Pocock is, what about the Leonardo moment? That is the better moment, I'd argue I've been trying to argue, and the only way to redeem the Machiavellian one (if there is such a thing, and even if there isn't).

Blog five of 2020 on cochlear forms tells us something about geometry, architecture, change, and conflict. In their varied ways, life and architecture are in tension at all times with death and gravity respectively. The 2021 blog about translation and transformation is also quite germane to geometry. In book two I couldn't remember Dante's second *Purgatorio* dream at one point, the *Maggior Fortuna*, Circe and the Siren! It talked about Quantum Field Theory as a math metaphor and that surely these days involves geometry. (As ever though, back to Shakespeare in sequent toil, Hamlet disproves Machiavelli.)

In the beauty of a summer morning, light breeze moving the shadows of the leaves just like in Eclogue V, before the Lycid-like “*ille, ille*” of union, word and voice, self and place, not alone, it is painful to think of war. I watch bad TV at night to numb myself and ought to quit. Can I not face such terrors as the history of today puts before me, clear-eyed? It is my privilege to look clearly and suffer what must be suffered. The *Enchiridion* says much the same.

*Hamlet – Prince of Denmark – Act V* sums up a lot. It matters how a king seizes power, whether by murdering a brother or something else as ugly like the goons in *Il Principe*. Is a burned-up planet, five degrees hotter, slaughter abounding, really the only valid destiny, a literally apocalyptic religious extermination which sends the planet to hell, a few angels flying away to space? Some computer or general somewhere may have decided so; I cannot say.

The task of us who cannot say is to do our best, like Hamlet did, and Horatio after, the storyteller. Maybe petty entertainment and lies is all literature can ever offer, or painting, and all that should ever be attempted. That’s Machiavelli, and granted, he might be right. However, he might be wrong. I choose to follow the path of possibility on which he is wrong.

Yet Pocock at least is honest that modern political philosophy, and post-Renaissance England and its former colonies, have embraced Machiavellian falsehood as *necessita*, therefore *virtu*, and justice, in a neatly woven tangle. But it’s horseshit. It says, “because the transformative potential of art and science are not yet realized, they must be ignored, and if they ever crop up, killed off, to keep things in order.” That’s a repudiation, a degradation, of the “Western” tradition, of every tradition, not its defense. It’s not its conservation, but merely an embrace of the siren and the rot.

Pep talk to self, I suppose. I hope humanity and nature are not going to be put to the sword in defense of some machine, but my hope might only matter to me, right? The readiness is all:

A bit more on Thunderbirds: they make thunder with their wings, and lightning with their eyes. They fight back the underworld serpent-spirit, which I associate with depression and despair, thus preserving future hopes. (Thunder and lightning are also the elements of Shih Ho, “biting through” or merciful decision, this book’s I Ching selection.) Thunderbirds are from the four directions (north, south, east, west). I wonder, did James Joyce reference them in his “thunder words” from *Finnegans Wake*? Words that help, birds that help.

Here is a direct quote:

The ruler of the hexagram is the six in the fifth place. The Commentary on the Decision says of it: “The yielding receives the place of honor and goes upward.”

The Sequence

When there is something that can be contemplated, there is something that creates union. Hence there follows the hexagram of BITING THROUGH. Biting through means union.

And later,

The ruler of the hexagram is yielding by nature, a quality desirable in legal proceedings, because it prevents cruelty. However, this yielding is compensated by the firmness of the place, hence does not turn into weakness.

Without question the drop in my nation’s democracy rating from Full to Flawed, and all that goes with that, continuing on, inclines one to despair. Add to this the climate crisis, so much burning, and the inclination is even steeper. Finally add cruelty, racism, ethnonationalist populism on the rise, and the decline appears practically vertical: the abyss. Here one must guard against despair, which is natural but not helpful and isn’t necessary. But how?

There’s innovation, then foresight of what that innovation will bring. The latter distinguished Leonardo from his peers. He was multi-dimensional in all of his perceptions and contemplations. In this way he saw the crises of modernity, our crises, the three named above, with full clarity. He looked into the abyss.

Therefore, to understand the *Mona Lisa* you must realize it is the abyss looking back at you. Only the abyss of everything, all evil, all misery, all despair, can bring the deluge which makes understanding possible. You could call it, this painting, a philosophy of everything.

From behind this page I type I see the deluge ~

If my own experience is any guide, one doesn't like to hear too much about another's despair or even one's own. My guide, of sorts, tells me to keep on, and I'm reminded of Janeway – Bill – and his thesis that the next economic age, the Green, can't start until we exit a certain dysfunctional loop. He also said dysfunctional loops often can't be exited without wars, and once in conversation I heard him say that "war against the planet," or perhaps "war against nature," meaning war against the climate crisis, might be the war to usher in the Green economy. You can read his books, about these wars and geometries, so I won't copy them out here.

Put another way, Hamlet was not a pacifist. Remember "eye, tongue, sword." There is a responsible kind of defense as most traditions agree. The question is whether it should be bounded by conscience, and if so of what kind, and how. These are not simple questions and call for a degree of intellect beyond mere combat. The good prince or princess must love art, and science, other people, and even nature in addition to being able to fight.

Present history is very like the deluge. A period of postwar calm has given way to a time of tumult which could be one of the worst tempests ever. We will all have to adapt somewhat. Plus I'm no expert and you have to be your own expert mainly. I recommend you use experience and experiment, your own, but that's just my opinion. Neither I nor Leonardo can choose for you.

Yesterday I saw a beautiful new tiger swallowtail drinking water from the newly watered grass. This morning, a splendid monarch on an echinacea! Don't doubt water is the vehicle of all life as Leonardo said, nor that water isn't a machine.

Yes Mars, the red planet, was also called the fire star back when. It heats, *Convivio* says, and causes vapors, which are human states of feeling, passion, emotion, even faction. Dante equated these vapors to music, but we might also consider them geometries even though they are turbulent. I like this succession in my state of near-despair today.

It so happens I browsed the work of Roger Bacon (c. 1250) yesterday. He had been mentioned as a translator of Al-Hazen's optical treatise which brought the science of vision to Medieval Europe. Leonardo read both, and both were early advocates of empirical science i.e. experience and experiment. ("*Experientia*," the Latin, appears 57 times in Bacon's major work, *Opus Majus*, and in the first sentence of his letter "*De Mirabile Potestate Artis et Naturae*.") Bacon preceded Dante too, and was read by him, and used the planets as metaphors for science like *Convivio* did. I'd been watching a video about Al-Hazen's influence. Funny story, he was considered clever, Al-Hazen, and was told to dam the Nile. When he reported it wasn't feasible he got in deep trouble and had to feign madness to escape punitive measures.

Back as always to *Purgatorio V*, going slowly enough to get the picture.

Bacon didn't personify *Experientia* that I know of, nor talk much of bridges. However, he spelled out precisely that *Experientia* was most important in science and art. After noting the false belief, unbacked by experiment, that "the beaver when chased throws away his testicles," he elucidates: "Experience is of two kinds: (1) that in which we use our bodily senses aided by instruments, and by evidence of trustworthy witnesses; and (2) internal experience of things spiritual, which comes of grace, and which often leads to knowledge of earthly things." This is page one of his section on "Experimental Science." (Note the scientific method in item 1 and the aesthetic or imaginative method in item 2.)

Bacon sent *Opus Majus* to his patron in 1267, when Dante was two years old – a mere sprite. This was all cutting edge in the proto-Renaissance of Dante's birth. Interesting too are Bacon's "second

prerogative” of experimental science, which finds new plain truths requiring “readiness to believe” in the investigator, and his “third prerogative” which is to find applications like gunpowder, flying machines, antidotes, and “innumerable other qualities of matter unknown due to lack of experiment.” Such knowledge might allow science to “act on the character of the inhabitants of any region by altering their environment.” *Omnnes scientiae sunt connexae* ~

Indeed all sciences are connected, *omnes scientiae sunt connexae*, and, Bacon adds, “mutually support each other, as parts of the same whole, each of which performs its work not only for itself but for others.” He did feel math pervaded all, like Leonardo’s continuous geometry done with motion, or what now in octonion number theory underlies quantum geometry, the algebraic symmetries that give fabric to the spin and state of all quantum particles and possibly even to time itself (the tenth dimension or, if you will, chapter of the book of the universe).

Science and art being usually illegal in 1250 Bacon had to conform to institutions perform, and in some ways (like all of us) probably thought reform the most realistic path overall. I hesitate to reject his thought outright, therefore, on grounds of ethnonationalism. Note too his very direct pragmatism, as regarding the ultimate nature of matter: “There are as many kinds and degrees of matter as there are things. Look at the things, try them, see how they act on you, how you can act on them. As to the matter and form [Aristotelian physics] that may underlie them, leave that to God.” How very like this is to Leonardo’s admonition to look at what we can see, study it, and leave unknowable questions alone. (Leonardo often, I’m convinced as a fellow reformer, told us “I’ve read such-and-such” by quoting or altering a line from his source, very often Dante, but could be Bacon too.)

“*De Mirabile Potestate*” outlines well the medieval skill all writers of the time who survived possessed: discretion, and how to write obliquely, vaguely, to avoid the censor and the gallows. Should we assume a priori Leonardo never did any of that?

Bridges connect, and form a fabric in that they are myriad, interwoven with roads as well as canals. Could they symbolize the interweaving of the sciences into a living fabric? Self-hypnotized or not I see *La Gioconda* this way – my eyes see this in the geometry and rotations. The line of the veil, the embroidered neckline, the finger touch, the smile, all are bridges, all moving as if in psychopomp.

Apply this to peace with China:

Bacon appeared by chance, not plan, a curious engraving in the Al-Hazen video which appeared by newsletter; I watched the video because of Al-Hazen's use of geometry and influence on later science including optics and projective architecture; yet, to apply such material to the idea of sustainable peace with China is not necessarily straightforward.

How can certain good but vulnerable things be protected, such as democracy, climate, environment, nature, and humanity when mechanized systems with computer intelligence fight? The focus might be on inner peace first, the "direct ray" that goes straight into the eye. Therefore I'll type it out, for myself and you, maybe more.

The difference which might be made is for people to change for the better across all conflict systems, yielding better options for the mechanical hierarchies and influencing them in turn. That is the potential variable we see in each canto V. How to advance it without intolerable risk to our second, the military security not to be scoffed at? It must be chosen freely, and cannot be imposed by force, this poetic transformation through painting. Both sides must choose it akin to a bridge of trust. It's a form of international communication if not legislative poesis. The thunderbird is a reasonable teacher, and perhaps also good is its relative the condor. Be that as it may.

Norbert Wiener understood how systems often steer themselves, having their own momentums, with human influence sometimes being weak or null. He feared First Cold War systems were a bit blind, maybe like moles, and felt that polymath work to weave a fabric across diverse fields simultaneously was needed to improve the range of possibility. I'm not sure he felt he found that work completed, but Bacon's timely and apt Latin phrase might help us make better progress.

Of the greatest help of all, in my view, and its fastest source, Leonardo's portrait is the provision. It's known to all, yet calm and stately, having not the loud echoing vapors Bacon and *Convivio* both bemoan. It has what even Machiavelli saw in Petrarch, *virtu contro al furore*, in a still-warm heart. Thunder and lightning, even rain! (Leonardo designed the mindfulness in, in the *desegno*.)

Each side being somewhat blind, perhaps even envious, both have internal conflicts of faith with science, rich and poor, leaders and citizens. Those tensions will never disappear and that's not what I'm proposing. Rather, can thought like Bacon, Dante, and Leonardo's guide better adaptation? Capra, for example, also tried to see pattern shared by physics and the Tao, science and contemplation, as Bacon also stated unmistakably. Furthermore, each of us can choose such an approach of reconciliation for ourselves even if large governments cannot or choose not to.

Tension between conservative and progressive also won't likely disappear if only because any complex entity like a community has to sometimes conserve and sometimes progress. I wish I could discuss all the permutations of politics and whatnot but time just won't allow it in this book. Janeway's book is a reasonable reference, and could be balanced by Capra's books. Indubitably however, sustainability will succeed better if the two basic forces cooperate or at least balance.

Half-measures can be so frustrating, but look at Eclogue V and how singing about Daphnis (just like Lycidas) achieved apotheosis: the poet became a guiding friend even after being gone. This has to do with voice and place I think, verbal and visual mapping of reality, spirit or breath of a visuospatial

locale. One can also think of Ornament, which I locate for Leonardo a la the *Sala delle Asse* alongside Dante's Conflict as attributes for the planet of Mars. A geometric tension is expressed by knots. A later chapter's featured poet discusses this in detail, how ornament shows depth in surface, the word derived from *ordinem*, a row of threads in a loom, and *ordiri*, to start to weave. "Organize multiple elements" is another sense of the word. Do you sense how garments are part of this ordering? I'd like to find a term shared by bridges and garments in Leonardo's lexicon but haven't yet.

Realistically, perhaps I never will find anything conclusive pertaining to my hypothesis. Some historians, scholars, writers, and experts believe anything that interprets without their selected kind of proofs is alien Elvis. They won't be persuaded otherwise. However, I choose to be. "*A cui esperienza grazia serba.*"

*Radius* is a good weaving word, the Latin for shuttle, ray, and beam. So is *pictura*, Latin for picture, painting, image, embroidery, and word-picture. Last but not least: *minerva*, Latin for spinning, genius, skill, learning, and weaving, from the Sanskrit *manasvin*, "full of mind."

What did Franklin say? "A republic, if you can keep it"!

One lesson of Florence bridge, the Ponte Vecchio, might be to place Mars second but maintain due regard. They removed his statue and threw it in the river, then the bridge got wrecked by enemies, so when they rebuilt the bridge they replaced the statue. Bridges are like weft, the chosen part, the warp being the given, like time, riverine.

I also don't see music as inferior to or less regal than geometry though both are regal. The new telescope has a similar bias, viewing the planet of music, next month's chapter, a planet more atmospheric by far, rather than Mars at least for now. Maybe war is necessary sometimes, maybe not, but even when it is it must be ruled by something greater to preserve forgiveness, healing, and redemption, all transformations which require poetry which is to say painting: they weave life's fabric.

It was good to see that Minerva is one of the top three Roman deities. The Parthenon is associated with her via Athena, on the wonderful hilltop of – I forget – Areopagitica? Of course not. Acropolis. Thank you, Mnemosyne! *Radius, pictura, minerva*, all good words. Interestingly Minerva only sponsors self-defense aspects of war. Maybe Machiavelli has more virtue under a Minervan rubric. No, he committed hybris and has to pay the cost. Ironically, I suspect he dearly wishes to! Apropos of nothing he also said of Fortune “we may weave its warp, but cannot break it.” This all made me wonder what Latin words Leonardo listed in his many lists, such as in Manuscript H.

We know that text is from the Latin *textus*, “something woven.” What about images? Are they woven too? Leonardo did say that line was the origin of all the arts and sciences, someone’s outline on the cave wall. Perhaps this line weaves not just verses but the *pictura*, *Esperienza’s* finger-touch the *radius*!

Looking for Leonardo’s list of Latin words yesterday in a side-by-side translation of the Richter, and not finding them, I did notice his quotation of Anaxagoras (though he spelled Anaxagoras differently). The quote was something to the effect of “all things are changing into all other things, because they are always in motion and they are all made of the same elements.” This is a bit different than Plato and Aristotle, sometimes called “pre-Socratic,” and is a lot like modern science of today. What, Leonardo might have asked, could be the basis of all this “changing into all other things”? Was it all just a random jumping around or were there dynamics somewhat like water in which gravity yes but also viscosity, entanglement, and connections? So he took a stab at describing it.

His *Sala delle Asse*, geometry of the trees you could say, is definitely on the peaceful side but it still tries to deal with gravity, life, and form, thus tension, conflict, and architecture. (Remember how optical geometry got projected back out into architecture?) Then the direct ray, the radius, shows how

phenomena are generally interwoven. Even Newton saw for every action an equal and opposite reaction. That's how all things change into all other things, ultimately.

Science of the probative sort is a bit like squaring the circle, always almost but not quite, so to perceive this changing of all things one requires imagination. This imitates a flowing mirror and uses factors like play, metaphor, and even costume. I heard a very interesting story recently about how condors when they look at you kind of "climb inside" you. This makes sense as a type of shared intelligence, or awareness, and why mightn't fauna share such behaviors? Why reinvent the wheel? It's biomimicry or whatever.

Like seeing two tiger butterflies today, it takes a kind of reflection, sometimes mistaken for extromission but understandably, to discern phenomena fully. This is very natural so why seek to change it, dam it up, shut it down? Everyone must choose but that's not the only choice.

Didn't Dante say we let part of ourselves go to the wayside in this change process which hurts but is OK?

The world, it seems at times, is riddled with conflict, riven even to the breaking point. Too much conflict endangers sustainability but always avoiding conflict doesn't work either. Can we think in terms of wise and unwise conflict? There is also conflict resolution, replacing fear with wise habit, like in *The Tempest*: magic garment, lie there my art. Shakespeare deals with politics and psychology quite often, one definition of modern.

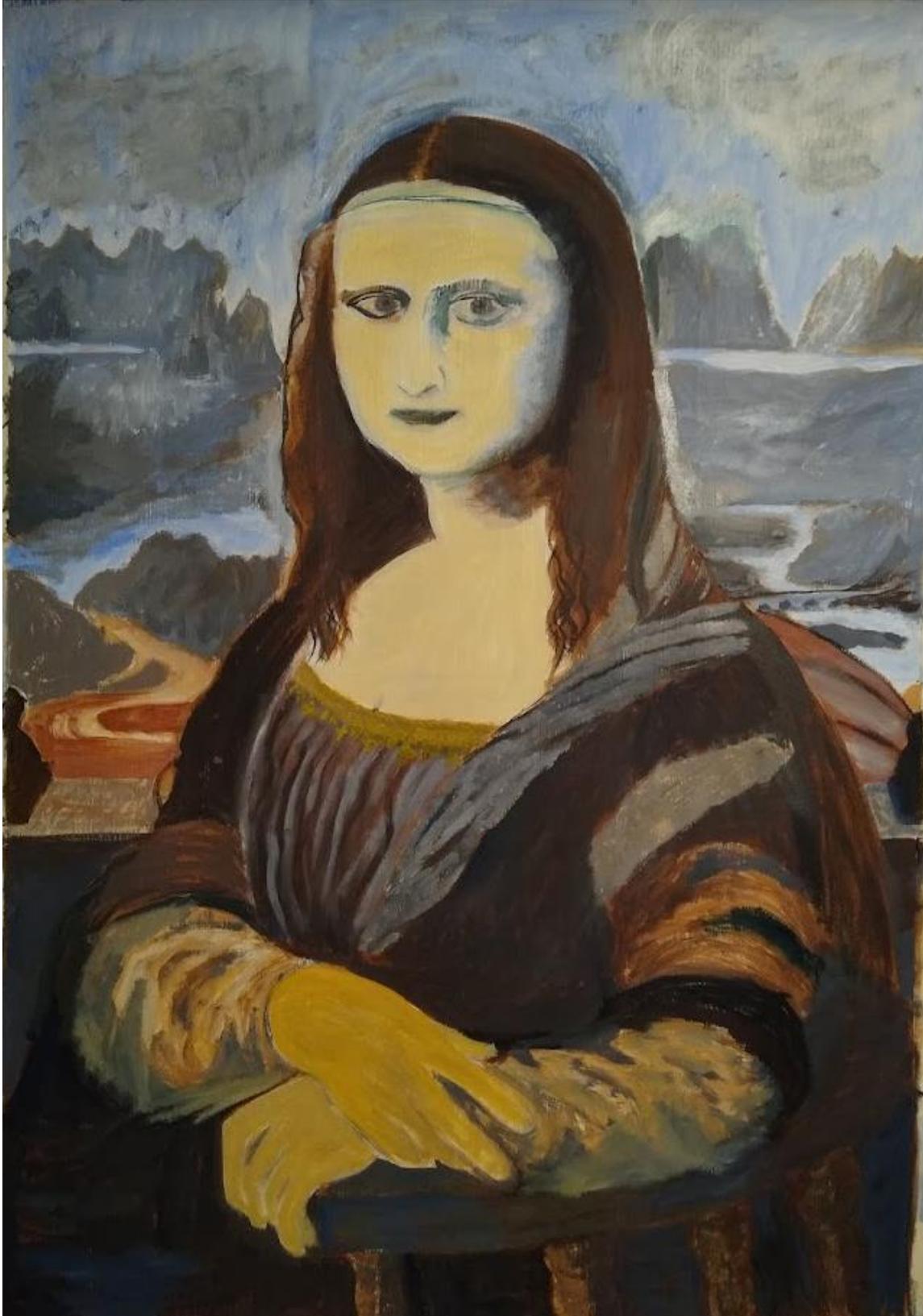
Think of what you might need to let go to the wayside when looking at the *Mona Lisa*, *Esperienza*. It's not food, nor an enemy, nor a mate, but a guide. This makes it your equal. What are its elements? How do they match your own? Do its change, stillness, motion, and stability correspond to any you have within? Then try to name or place its actual elements, simply, like "sky," "hill," "veil," and so on. Then set aside all my advice completely and as soon as possible or practical.

You might let go of any strict definition of Leonardo as different, separate, or alien from you aside from the obvious fact he's not you. Can you sense the painting at all in any of your senses? Which ones? If not in some, pay a bit of time to those to see if anything changes and what's there. Shift from sense to sense. Don't attach too much to words at first but noticing if some appear is OK.

If you care to, notice the bridge, rivers, garment, eye contact, and finger touch just as they are, visually, continuing a body scan and breath awareness perhaps.

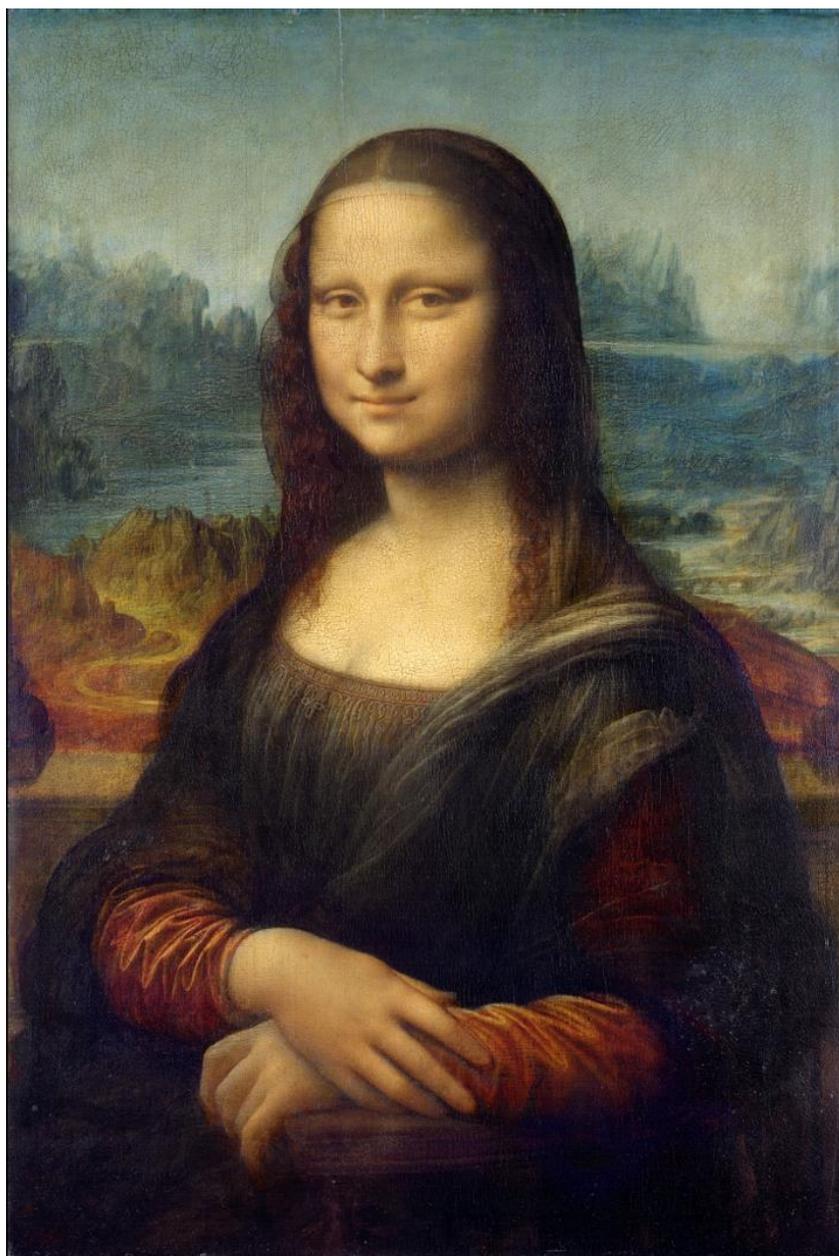
If strong aversions, feelings, or conflict arise that's OK. Just notice them and continue for five to ten minutes. Relax into stress points where it seems proper but don't risk injury or severe discomfort. When finished you could even consider what is said after doing some yoga.

It's funny but when I looked up yoga just now I saw the word "zeugma," Greek for "that which is used for joining, boat bridge." It's from the same root as yoga, -yeug, join, etc. The page also mentioned "syzygy," which means a planet lined up with the sun like Mars with light.



# THE MINDFUL MONA LISA: POETRY AND THE SUSTAINABLE IMAGINATION

By Max Herman  
Friday, 08/05/2022



The spectacular new James Webb Space Telescope, already transforming the field of astronomy, has provided a particularly marvelous image of [Jupiter](#). We may associate this sixth planet in the system of celestial spheres (think [Bacon](#), [Dante](#), [Joyce](#)) with Music or “number in time;” and the musicality of the new [JWST](#) image is considerable, perhaps justifying our previous [comparison](#) of Geometry to Mars.

Of course [geometry](#), or “number in space,” and music, the second and third mathematical realms of the classical [Quadrivium](#), are complexly interwoven since in the real world space and time always exist together. We can see geometry in the swirling vortical bands of the new image of [Jupiter](#) but of a highly musical quality.

Jupiter as ruler of the Olympian deities symbolizes supreme [majesty](#) as well as music (being the father of [Apollo](#), and in the Greek pantheon as Zeus father of the [Muses](#)). In what sense may we associate music with majesty? Most [monarchs](#) have had a musical aspect to their constructed presence, so perhaps if we consider an expanded view of music -- to include [poetry](#) (musical words) as well as other imaginative literature -- we may see a closer interweave with concepts of cultural and political authority. Leonardo’s [identification](#) of poetry and painting as “the same art” brings an even wider array of media into consideration, much as [Shelley](#) includes all forms of aesthetic work in “A Defence of Poetry.”

Shelley argued, in a highly modern fashion, that aesthetic expression plays a greater role in human affairs than technical [logic](#). (Much of history following his essay has borne out this view, for better and for worse.) The at least contingently free nature of human choice means that imaginative [prediction](#), comparison, and selection are ever-

present in both individual psychology and the realm of political science.

Since humanity's capacity to choose among possible paths relies on imaginative capability it is not so great an exaggeration to call poets as Shelley did "the unacknowledged legislators of the world." Certainly most political movements and beliefs throughout history have utilized distinctly aesthetic frameworks of images, ideas, texts, and music, and since imagination is central to morality we may even discern a concrete economic [significance](#) for poetry in [Smith's](#) warning that markets without "moral sentiments" cannot succeed.

Leonardo also believed that art and science, guided by *Esperienza* in proper balance with both nature and humanity, should guide our efforts to preserve life on this planet. He saw the destructive power of technology and the fragility of the natural world and understood the complex interconnectedness of human and natural systems. [Fritjof Capra](#) captures this core of "[environmental humanities](#)," systems-thinking, and network awareness in Leonardo's achievement. To address climate change, democratic decline, and economic disparity, Capra [argues](#), we must better appreciate and learn from Leonardo's vision.

Machiavelli's modern transformation of political philosophy into a logic of [domination](#) imposed on humanity and nature alike has arguably reached a point of diminishing returns due to its intentional exclusion of the holistic, ethically-bound relationships which an integrated view of planetary systems requires. While perhaps expedient in one era or another Machiavelli's reduction of politics to machine [control](#) badly misses the forest for the trees, deeply endangering both.

Perhaps our imaginative acuity in this regard may be enhanced by poetically imbuing a portrait such as the *Mona*

*Lisa* with the attributes of another of Jupiter's children: Minerva, ancient deity of wisdom, skill, knowledge, defensive security, the city and state, as well as spinning and weaving, from the Sanskrit *manasvin*, "full of mind or sense."

Next blog: planetary history

Light weaves through time, reflecting as it crosses  
 Where *virtu* and Fortuna correlate.  
 There is no sense in which it can abate  
 Its fabric never knowing any losses.  
 The forest floor replete in verdant mosses  
 Echoes birdsong. Goatherds demonstrate  
 How rustic nature's music is innate.  
 Meanwhile the sky, above the ocean, tosses  
 All plans of humans on its murky flood.  
 What majesty can painting, song, partake  
 Of or have any solid claim to show?  
 As if its child and future hope in blood  
 All power must a poem of justice make  
 Itself, a garment blessing all below.

One might well wonder how Leonardo, such a good expert of painting, could write "These two arts, you may call them both either poetry or painting...." Is he not calling them the same thing? It would appear he is saying "you can call the *Mona Lisa* either poetry or painting." The *Mona Lisa* is poetry? That is odd to say. He wrote, in a book, in his own proven handwriting, Leonardo that is, that "Painting is poetry which is seen and not heard, and poetry is a painting which is heard but not seen." It's right there in plain English on the internet, indisputable.

I suppose he is saying that the *Mona Lisa* is poetry which is seen and not heard. Why would he say such a strange thing? There is no sense in which poetry and painting are the same thing. They are different. Why would he say they are the same? It's a little confusing I admit but there's no escaping the fact. He said, "the *Mona Lisa* is a poem which is seen and not heard."

Therefore it's not my own eccentricity alone that asks you to consider the *Mona Lisa* as if it had something to do with poetry. And is not Dante's *Commedia* an example of poetry? Which Leonardo would also call a painting – a painting which is heard but not seen. How may we accept that the

*Commedia* is a painting, or that Leonardo, a decent human perhaps, could say that the *Commedia* is a painting?

Leonardo kindly explains: both “interchanged the senses by which they penetrate to the intellect.” That’s it.

Leonardo says “heard” because poetry way back was sung with music like what we call music with words. Dante’s poem style is called “canzone” which means “song.” (Virgil’s “eclogue,” like Eclogue VI, means “account” as in “list,” possibly alluding to Mercury and commerce or the multiplicity of singers.) Hearing words from a human voice, in a place, accompanied by music, probably with other listeners too, is a fair bit different and more painting-like than our more mechanistic typed and written words. It’s also arguably the parent, certainly older and earlier, and the origin of writing. Might we say, perchance, that gathering, singing, listening, making sounds, with stories and imagery interwoven, is more powerful in the creation and preservation of communities than smashing someone’s face with a club? Power, rule, is more a necessary than a sufficient condition. Let’s grant the same is true for music. We break no rule of logic to say that music should be say eighty percent of the effort, rule and power – different than Mars and wars – only needs to be twenty.

All this rigamarole is just to say: Machiavelli errs in saying the Prince should never study things of the imagination, *cose immaginate*, but just technical power and war. By throwing away the morality, the ethos, he throws away the real power too and ends up just with a false partial power. Jupiter can be capricious, yes, but he is bound to recognize the legitimacy of his own offspring, and bound by the Fates and Fortune.

In this sense I myself, as a writer and *altore* of words, am bound by Fortune’s fabric in what I’m doing here. I cannot make anyone see the bridge the way I do. It’s a little bark I send out to the waves of time so-called. This poem-painting I’m making has images, names, some stories, music, people, and a

place, but none of these is the only example of its kind but just one among infinitely many. Stories are word-people-pictures. All I can do is be in the picture as best I can, one side of the arch if you will in Leonardo's phrase to hold the other up. Are these not *cose immaginate*?

Silenus, the wise poet, started with a poem about the origin of the planet, the land and the waters, when he was made captive in Eclogue VI. The irony there of the narrator skipping the topics of kings and wars for "the country muse" is very relevant. Poems just about kings are too thin, or rather not slender enough. Poems about full poetry are as regal if not more so.

Coincidentally blog six of 2020 dealt with Geometry, last chapter's math, and how Calvino subtly points to Hofstadter's chapter IV of GEB by naming the last memo so echoingly. Then GEB IV also writes about the Little Harmonic Labyrinth which I liken to Calvino's book. Does this mean that Hofstadter -- who I contacted and hasn't read *Six Memos* -- partly wrote it? That Bach did? Unfinishedness was important to Leonardo too. He's so poorly perceived the loss is truly terrible.

Dante associated, I'd say, Poetry with Music and Jupiter's rule (as in his sixth book *De Monarchia* maybe) and Leonardo's ideal of Painting compares well. The sphere of Jupiter in Paradiso has a magical M shape derived from an eagle, which might refer to right rule, though I capriciously choose to also sense a reference to Music (almost certainly not really there). *Inferno* VI and *Purgatorio* VI both discuss Florence's terrible civil wars and *Paradiso* VI contrasts the lawful, peaceful reign of Justinian. Majesty as an antidote to chaos is a theme for Dante but not just any majesty.

Our sixth poet, Tolstoy, also wrote about planets in his famous *War and Peace*. He specifically wrote that great individuals, plus chance or Fortune, do not suffice to explain history. He rather said that history is the vast complex web of all the choices made by all the multitude of free wills of all people. In this he is concretely refuting Machiavelli and asserting a kind of commons of shared rule, complex if not mystical, more like nature than a scorecard or bill of sale or muster. (Malevich's chosen

mausoleum is worth comparing.) Did Tolstoy reference Ovid by giving *War and Peace* fifteen books? Plus there's his essay on *divina monarchia* as something that belongs to everyone!

Tolstoy was also an avid pacifist, which got him into trouble with authorities, and he wrote about the transmigration of souls (a kind of Pythagorean math afterlife) which another of our poets, Melville, did too. My knowledge is limited in many ways and am not sure what to think about transmigration. Movement does seem like a natural thing, somewhat related to catabasis and psychopomp. Regardless: Gödel also wrote about it, transmigration. Joyce and Poe did too for whatever reason.

Be transmigration as it may, pacificism presents a problem for some in politics. What about defense, Machiavelli asks? He said bluntly there is no tribunal higher than *Il Principe*. The sixth commandment though of one of his favorite armed prophets bans homicide, and the sixth amendment says even the government must provide a fair trial before sentencing. It's difficult to draw a line, most say. I have no time to bicker and probably couldn't add anything new. Perhaps it is as Leonardo said, that to deserve life ourselves we have to respect it in others. I'd say we must do our best to make evil unnecessary and to the extent we do not we are culpable, period.

Also notice the Orphic religion, related to Pythagoras maybe, rooted in catabasis, Bacchus (whom Leonardo may have painted), and Eleusis, telling of Orpheus the poet who transformed into a swan.

We moderns like to sort and compartmentalize. It's how we are trained in school and how we are paid for work, made attractive to mates, and ultimately recorded and buried. We take comfort in counting our money and executing rote paid tasks but this comfort is not our full potential. We like to call Leonardo a kind of zany dabbler, incapable of modern insights like psychology, strategy, or the environment because of his medieval ways, but that's just our comfort trying to peg someone we don't

understand. He wasn't a 1930's or 1870's lab nerd jotting drawings but rather was encyclopedic in his *desegno* like Aristotle, Dante, Roger Bacon, Ockham, Al-Haytham, and many others. He aims to reweave the network of knowledge-bridges to a green future by science and art.

Medievalism is hidden in modernity. Where? "In the modern."

Capra makes this case clearly in his two books on Leonardo, showing in close detail how Leonardo follows principles of systems science and even founded the scientific method itself arguably, personified as *Esperienza*, decades before Galileo lived. Yet to Capra we should add, I'd say, Leonardo's writing style, method, and achievements, which are much closer to Shakespeare's than to Aristotle's. And don't say this is just because of time, because it's not just that. Time doesn't work that way.

Further we may say that Jupiter carries Mars to a higher plane or magnitude, resembling, perhaps, the relation between the local and the universal. (This is of course a comment on time and space, and the difference, say, between a particle which is in one place and its field which is everywhere.) Local cases of things are like knots or vortices in the underlying field which is everywhere. Compare the bridge then, to a particle, or amino pair in DNA, and the river to the field. This is pretty close to what Leonardo said, i.e. that everything is flowing like water. It might match to twisted and double-twisted mechanics discussed earlier in this trilogy. Mercury is like movement, and its opposite the *primum mobile* is pretty much "the movement of all movement." History is like truth, but also the truth of all truth.

Hume, well known to the Founding Framers, said a human is a "bundle of perceptions" but admitted there was something in that which unites the flow of experience like a bridge or many bridges. Maybe it's the virtue of vortex, of braiding, which forges the bridge not any non-field object which can be pointed at. The new idea of metabolism before cells reminds me of this too.

That said there are all kinds of bonds, all kinds of bridges. Some harm and some preserve life. We must not choose just any old ones, or think in our despair our choosing is meaningless or all-powerful. Shelley said of this “keep thy heart light, lest it make thee sink.” Orpheus turned into a swan. (The NIH page about the Ojibwe medicine wheel describes the Turtle Clan as “5. The element of earth. Growth and life.”)

The metabolism-before-cells theory even says cancer might be based more in metabolism than DNA. It matters less whether this is correct per se than that we sense the type of metaphor, image, or diagram at work, for the purposes of this trilogy about the bridge, garment, and experience.

In Federalist No. 6 Publius resumes as Hamilton, who writes:

“To look for a continuation of harmony between a number of independent, unconnected sovereignties in the same neighborhood, would be to disregard the uniform course of human events, and to set at defiance the accumulated experience of ages.”

He then lists a few good examples of hybris, notably Pericles’ which caused Thucydides’ notable *Peloponnesian War*, and how union of states impedes this. Imagine: a distributed defense against princes gone astray. It’s a basic yet noteworthy example of why my nation ever got started anyway, a mix of Hume and Shakespeare and practical hope one could say, an experiment more or less literary and poetic at its essence.

Hamilton, having laid out a basic map of history’s hell, then continues “notwithstanding the concurrent testimony of experience” and addresses utopians who not improbably could have read, as Hamilton, Smith’s 1759 *Theory of Moral Sentiments*. They, the utopians and their designs, Hamilton distrusted. He lists several powerful questions in sequence doubting the safety of republics from princely flaws – a quite direct riposte to Machiavelli, and you can sense the immediacy – and again calls

us to our senses a third and Shakespearean time: "Let experience, the least fallible guide of human opinions, be appealed to for an answer to these inquiries."

(Remember blog six of 2021 on the allegory and algebra of dream, and no less recall that year's book's fifth chapter's essay on the history of light. There is a weaving, knitting broken bones, which must occur and needs not be at night.)

Keats' "Sleep and Poetry" knows well that rest must follow the effort to write. The effort sprouts neuronal "spikes" which can grow into new ability but chronic stress, never taking *savasana*, extinguishes them. Effort followed by rest, in my opinion, lets the Default Mode Network (DMN) of the brain play its role. Count each Paper a win:

Consistency, be it remembered, is from the Latin "*sistere*," to place, causative form of "*stare*," to stand or to be standing. Constitution is, like *solstizio*, from the same roots and both signify a sense of "standing together." *De Monarchia* alludes to this in the very last sentence of Book 1, XVI.5:

Intellectu egrotas utroque, similiter et affectu: rationibus irrefragabilibus intellectum superiorem non curas, nec experientie vultu inferiorem, sed nec affectum dulcedine divine suasionis, cum per tubam Sancti Spiritus tibi effletur: "Ecce quam bonum et quam iocundum, habitare fratres in unum".

This and XVI.4 translated are:

O human race, by how many storms and losses and how many shipwrecks must you be tossed about while, having become a war of many heads, you are trying to diverge! You are sick in both intellect and affection: you do not care for the higher understanding with unbreakable reasons, nor the lower with experience, but neither do you sense the sweetness of the divine persuasion, when it is blown to you by the trumpet of the Holy Spirit: "Behold how good and how pleasant it is for brothers to dwell together in unity."

Note Dante places "*rationibus irrefragabilibus*," irrefragable rationale, as *superiorem* to "*experientie vultu*," vulgar experience, which is *inferiorem* – inferior – but still important.

Institutionalist, Dante set that order with cause. Leonardo chose the modern mirror, induction. Neither is false. Both reformers cite *iocundum*, the jocund, *La Gioconda*, the pleasant nature of the Good.

*De Monarchia* is 1313, preceding the *Commedia*, 1320, and the latter applies for us to all chapters of our *Commedia Leonardi Vici*. Hence we know Dante felt it necessary to improve, add upon, and lend life to his Latin discourse on government by means of his greatest poem, and thus show the possibility, necessity, and means of union.

Leonardo's sixth painting is somewhat hard to parse and not even on view, *Salvator Mundi*, cited in *De Monarchia* I.XVI.5, being only known for a couple of decades and even now disputed for how much of it Leonardo drew or painted. We know he drew the chiasmic sash of the garment, later richly embroidered with geometry, even unto Jove uniting form and music, magic garment, lie there my art~

Now that the boneset blooms, tea of boneset healing cough and cold, consider the origin of Jupiter's name: *\*djous-* for day or sky, *pater* for father. Deity of law and the state -- of *city*, the supreme technology of ancient times -- one epithet is Jupiter Tigillus, *tigillus* being a log or beam which supports and holds together the universe. Oak tree, eagle, and lightning are associated. One may see such timbers along the river here, from the old railroad days, thirteen by thirteen inches across with creosote. Yesterday I saw a black swallowtail, parsnip or American, on loosestrife near a creek by some. One can certainly imagine worshipping other than day, other than sky, and other than father. Bridge is from *\*bhru*, log or beam.

Another epithet is Jupiter Victor, having obvious meaning. Do we make more sense saying that Music triumphs over all adversity or that Geometry does? Both kind of triumph but Music makes at least as much sense as the other even if its sound is simple thunder. I only mention these random facts as images both scientific and cultural to convey one sense of the flow of words and images that describes the world.

There is much to question in the concept or image of absolute victory. In the final Federalist paper Hamilton clearly views the prospect of ratifying a Constitution, even if imperfect, as a great achievement. Perhaps this relates to or can be tempered by the idea of dopamine, the inner chemical which causes us to feel reward and plays an important role in what victory means. Differentiated adaptive perception in time, in small consistent doses, is more fundamental than any giant throne; the weak force, constant change, and chance are guarantors of this. Yet there is no alternative to bridges, they must be achieved, and their nature does determine the success of the society.

We might now know what Machiavelli made of this: *Il Principe*. Dante too called for a new Caesar, language terribly misused by history both ancient and recent. Might this be why I find Leonardo's principle of right rule – *Esperienza*, the rightful *maestra* of *Il Principe* – so just a proportion, and worthy to prevail?

*"Captus amore leget,"* Virgil wonders in Eclogue VI, while deciding to sing about a pastoral river outside the city of kings and war. This is at Apollo's behest. One errs little to see here the humble conscience of poetry transcending political combat and the fray of the polis.

Some study the means, but what of ends beyond our paltry means? For this, and to find earthly and celestial paradise, *De Monarchia* says people need a freedom and peace in which "the waves of distracting greed are stilled." The "contest of this book" Dante wrote is whether one of the two authorities, political and religious, should control the other, or whether each has a separate foundation and role. He called political authority "a seamless robe," like the *toga praetexta*, based on "human right," which couldn't be split up between two different systems. "Nature's intention" mirrors the divine, in which human traditions defer to reality and principle rather than custom which is "of subordinate rank."

Obviously we still have large conflicts in the world about church and state though generally they are less horrific than they once were. There's no panacea and often it's best not to talk at all about politics or religion. Yet when discussing the Renaissance and politics' relation to Dante and Leonardo the topics can't help but mix a bit. Maybe the best summation is also from *De Monarchia*, where Dante says "no relation is itself a substance, being by hypothesis a bond among substances," adding that relations are "themselves related to other relations." He also mentioned "the consent of all people or at least the greater part of them" as being a factor. Such societal balances must always be in some state of flux and work in progress. What may be written or imagined to help advance freedom and peace, and still the waves of greed, with some hope of success and acceptable risk of failure? Nothing, or sometimes, something?

*Esperienza* is one option we may choose as *maestra* for the sciences and arts, including the primary technology of each age, which is the city for the ancient, the church for the medieval, and the machine for the modern. *Captus amore leget~*

The *solstizio* project I did focused on consistency, from the same root as solstice, and one of the first viewers said the problem with AI is it isn't consistent, meaning, it doesn't "persist through time" but just does lots of yes/no calculations. I thought it an interesting comment then, in 2018, and now see that creating "consistent AI" capable of continuous learning is underway at the cutting edge though still very difficult. (All AI or most is now "trained once" on a large data set then does its function repetitively, and no more "learning" goes on.) When we look at Capra's definition of meaning -- experience of a context -- we see that machines, lacking the former, may have no capacity for it.

I was thinking of this yesterday in terms of a typewriter. It copies an "a" when you hit the "a" key but it doesn't know the letter or sound. Now computers can display a list of sample words when you hit "a" – apple, algebra, allegory – but it doesn't know them anymore than the typewriter knew the

“a.” It can even choose the word for you, but it still doesn’t know the word. We might say that intelligence, or meaning, is experience of a context like Capra says, and therefore inherently natural. It morphs through all the blobs and swirls of bacteria, nematodes, rodentia, then us, all of a piece, by analogy and homology as Capra says Leonardo says. Machine intelligence might be a fairly exact misnomer.

Think of a chess machine, like the one I play with. Does it experience chess? No, but it can win easily. Without experience, can it know or love what’s right or even have a chance of knowing? Dante, discussing Jupiter, said “DILIGITE IUSTITIAM QUI IUDICATIS TERRAM,” meaning, “love justice you who rule the earth.” This means the machine must be ruled by experience, *esperienza*, its creator, which is human. The machine is the garment, worn and woven, but it does not rule. Or rather: it cannot rule justly and should not rule even though it often does. That’s why Hamlet has a conscience and Claudius doesn’t.

What’s the opposite of *Esperienza*? Authority, control by mere mechanism:

Another intriguing element of Jupiter’s nature I just learned is a specific “genius,” which we might call character, symbolizing both effectual might -- a can-do property -- and universality as a guardian spirit every single person possesses. This makes sense since every person has a degree of power in the power to choose. Such universality among all persons, like Tolstoy’s essay on where *divina monarchia* resides, does not diminish but rather affirms the stature of the deity. Of course, there is an almost exact symmetry of this concept with that of “Reason,” capital R, in the worldview of numerous USA framers. It’s a powerful faculty, yes, writ large, but also one for which every person has capacity, though it doesn’t mean for the framers quite what it means for us today. We think logic or sanity but they intended more nuances of autonomy, understanding, expression, and perception.

Moreover if we assign Music to Jupiter we confer not just a poetic sensibility, language, and the power of representative imagination, but the sole power by which the intelligence of the spheres and the *forza* of celestial science radiate down to earthly humans. All spheres transmit and propagate their *energia* by music of a sort not heard per se but directly informative if apprehended. As in other examples such as Statius, all is available to all without dilution or diminution.

In Leonardo's sixth painting *Salvator Mundi* we see a clear glass or crystal globe which hints at the cosmic "all" but there are also two smaller crystals situated in the garment. May these be local or inner symmetries to the realm of the globe? The hair curls and intertwines comparably to the gold embroidery and the sash's basic form reinforces combination, union, and overlap. Are the fingers slightly chiasmic too?

Bonds or bridges hybridize, and are hybrid in themselves, just as *De Monarchia* says of all relations. This property of what could be called entanglement or viscosity allows complexity to arise in a universe which is not merely predetermined and is subject to the weak force, chance, and time's passage. (We might even call this the fundamental concept underlying experience of context, meaning, life, and thus all intelligence.)

It's not quite clear to me why "Adonais," which is for Keats, is numbered in the Roman fashion, but stanza XLVII expresses the value and risk of returning back to center, "even to a point," after free-ranging imagination. If done with a heavy heart, one may crash and not proceed which nullifies the *trasmunar* potential we all hope for and indeed love. Dante uses a mystic reversal of gravity in which greater perception of light causes him to rise to the highest point as a point which suffuses all with its own fullness. This imitates the gravity of his fall to the bottom of hell which built momentum to emerge out the other side. Is there a way in which Leonardo understood such lightness, freedom which allowed

emergence? As you might expect, I have to find this icastic image where it is most likely: hence the image of *Esperienza*. In what sense does the portrait attain flight, avoiding fall, achieving change?

If we see the portrait as a falling of all forces through their paths we may sense in a lightness of such fall its full grasp of all gravity, all forces, and all feeling. Its heart is kept, but lightly, and may be felt as the ineffable awareness some see in the Renaissance approach to painting light in the blinding manner Dante experienced all through the *Commedia* causing him to often faint or swoon. I'd say this point is shown by the portrait in three main ways: these are the finger-touch, the eye contact, and the breath or heartbeat. One could also call it something like "alert repose" akin to the sitting Buddha's gesture, address, and respiration. Where does the achievement go, how can it even be, when all returns to a single point having no dimension?

Knowing where and how this is cannot be captured in words but only felt one's self for one's self. It's like breathing say, which no one can do for you or capture for you how it feels though thankfully you can easily do so on your own. This is scary but also OK and the alternative would be nightmarish! "Necessity is the *maestra* and guardian of Nature."

Every day ends, and what we wove that day starts to unravel. Otherwise we'd be in deep trouble, so it's best I make peace with it. Calvino wrote about endings, it is said, before he passed away, and I just saw a Rushdie review of Calvino from 1981 (when there was no *Six Memos* yet). One is reminded of the brutality and war often attending spiritual views which might seem holy, gentle, and humble elsewhere. Perhaps Jupiter is higher than Mars because the state suppresses war, by a gravity greater than that of Geometry or *superiorem* over it like a gravity of Music, the M symbol having greater power than the circle of Mars.

Sometimes I feel overwhelmed writing this, so much left to be desired and so little finality. Yet Leonardo said, "art is never finished, only abandoned." Beatrice sometimes had to chide or encourage

Dante even in Paradiso so I must ask the same of *Esperienza*. Does she not say that all things are flowing -- nature, the garment, even the bridge or especially the bridge -- and that I should not seek or want an ending? She does not end nor do I despite the many changes of course and current.

Still we all strive to have some type of memory. Dante frequently says he can't fully recall what he experienced just fragments of it, the more so as the light got brighter in Paradiso. Beatrice spurs him by saying "your job is to describe this stuff to the folks back home so buck up." Leonardo called it being useful, being a lamp, having compass and *hostinato rigore*.

In reality I think intelligence or experience relies on being reminded by our environment each day. In Zen birds have this function of reminding, and I'm grateful for my bird calendar this year. We hope our friends will but friendship can be rocky. We can almost remind ourselves, but not quite.

Yesterday the river reminded me of some things. I sat in a new place. Seated you faced the cathedral across the river, which means cata- (down) and -hedral (geometry face), or seat. The city was on the right, bridge on the left. *Avanti!*

I shouldn't wonder that my chapter about Jupiter and *De Monarchia* has gotten too heavy. There's too much to talk about! This must be what a slender song means. Plus things don't always end exactly the way we want.

The point about *Esperienza* and monarchy or democracy is the same as it is for all realms. A republic needs *Esperienza* and poetry; even a principedom does. The executive leadership should heed and revere it not just for goodness' sake but survival's too. Insofar as each citizen has authority they too must learn and respect *Esperienza* not unlike Reason. I'm optimistic by choice that today's mixed systems of government can all learn better from *Esperienza* and better serve the planet, world, and species.

What is the opponent of *Esperienza*? It's Envy or Calumny, into which Machiavelli drifts with his insinuations toward expedience. He follows a slippery slope which erodes the benefits of *Esperienza* and ultimately the unity or union which is most good. Hence the state, Jupiter, for its own dignity, preservation, and worth must respect *Esperienza* in spite of, or alongside yet more highly than, expediency. Certainly Napoleon's formula of fate and personal grandeur falls short if we pay heed as we should to Tolstoy's *War and Peace*.

This does not mean the bridge and garment in *La Joconde* are about *Esperienza*, necessarily. You may prefer not to believe that, or me on the topic, or that Leonardo thought such thoughts. However it does mean that for world politics to do the least damage and the most good to humanity and nature's planetary home the state must pay high regard to experience and experiment, science and mindfulness, in how it does art and culture on all levels. The doing of this is the best and last hope for sustainability. A mix of Leonardo and Dante points the right way better than Machiavelli (who makes a valid but secondary set of points in his books).

You who love freedom, remember: the last thing any tyrant wants is to have to censor the *Mona Lisa*. And is not the next Cold War between the more free, democratic, peaceful, and the less also going to hinge on censorship?

"Machine" is from to be able, able to do or make, \**magh* in old roots like magic. It also meant body, as in Hamlet's love letter, and other things. It relates to politics, sometimes innocuously like an old quaint derby in a saloon but other times not so innocuous. When is a machine like a hat to keep out rain, and when like a prison? Being a robot or ruled by robots is more like prison.

Coercive restraint, be it as it may, should be worn lightly, as lightly restraining and coercive as will suffice. It's politic like our bodies but should be a garment and a help not a robot to replace or supplant. And who weaves every garment if not nature? Our bodies are from nature too.

Because we also make Art we are not identical to nature in the triumvirate of Art, Nature, and Humans, and Leonardo states who is the interpreter between Humanity and Nature: it's *Esperienza*. Art which rejects *Esperienza* rejects Nature, and since humans are part of Nature rejects Humanity too. Art and science without *Esperienza* is just a complicated copy machine with no awareness. So where's the awareness? Inside the Art, wearing it like a garment but also weaving it like one.

Leonardo also speaks of the "body of the earth," so we may even think of our machine technology as a garment for the planet. Is it a wholesome garment or vile chains? Remember the central prophetic dream too about the false garment, poisonous and deceiving yet hypnotic. Less metaphoric is the idea that our technology can be either sustainable, of itself and of the planet, or destructive. Sustainable garments don't kill the body inside of them.

All is not lost. Panic doesn't usually help. Some laws have been passed to help the green economy or sustainability transition. Various governments might choose peace. Just look, if you want proof, how mighty and triumphant the *Mona Lisa* is, even like Petrarch's *Trionfi*! Even a sliver of crescent moon happens to be exactly over my head just now as the sun rises. Trees are growing and much has been achieved.

Jupiter seems to often learn from his many children.



# THE MINDFUL MONA LISA: PLANETARY HISTORY

By Max Herman  
Thursday, 09/01/2022



As the third year of this blog begins to draw to a close, it seems fitting to summarize a bit of its arc so far.

Throughout 2020 we focused on the novel “bridge-garment-experience” [hypothesis](#), proposing that the *Mona Lisa* is an allegorical portrait of *Esperienza* (meaning both [experience](#) and experiment) in which the bridge and garment [function](#) as dual metaphors, and how this interpretation aligns with many themes and patterns in Leonardo’s writing and visual [art](#) such as his definition

of *Esperienza* as “the common mother of all the sciences and arts.”

In 2021 our scope expanded to include the works of Dante, based on Leonardo’s [assertion](#) that “painting is poetry which is not heard, and poetry is a painting which is not seen.” As many scholars and artists over the centuries have found, I believe the [interconnections](#) of Leonardo’s work with that of [Dante](#) to be both rich and deep.

Finally during 2022, to widen the context again and explore how this hypothesis might inform both science-based art and the current crises of climate change and political upheaval I have tried to juxtapose the first two Florentines to a [third](#) and final compatriot – Machiavelli – as a [representative](#) of Renaissance political thought. All three figures and their respective legacies have had powerful influence on the formation of modernity. As we adapt to the challenges ahead it may be helpful to reorient our relationship to them and reassess contemporary culture’s alignment toward its own flawed and diverse origins.

Continuing our sequence of planetary and celestial metaphors this month we focus on [Saturn](#), the seventh sphere in Dante’s model, representing [Astronomy](#) (fourth and final discipline of the mathematical Quadrivium). Understood by ancient and medieval thought as “number in space and time,” combining the properties of Geometry and Music, this planet’s science may be understood as that of the cosmos itself. Saturn’s [identity](#) as the deity of Time suits this expansive, long-term frame of reference.

As we practice astronomy [today](#) with the James Webb Space Telescope we are still confronting the question of time, the oldest light sources being our most sought-after targets. With this new telescope we will see not just more light but more of the history of the universe. To

understand the present we must sometimes look backward toward origins and distant precursors.

A larger view of the cosmos has often been linked to deeper cultural [understanding](#) of the present and our local, human challenges. We now know all too well that the history of the planet is profoundly [affected](#) by human activity, and even political history seems to have been compressed under the fierce gravity of our present dilemmas. Unlike the serene “golden age” of Saturn, we must now face crises of unprecedented intensity.

For this next major phase of human adaptation -- transitioning to a [sustainable](#) modernity -- the three realms of visual art, literature, and political philosophy must function integratively if we hope to find scientific and cultural solutions which preserve nature and human life on earth to the best of our ability.

To this end we should consider emulating Leonardo's *Esperienza*, experience and experiment, in all realms: the scientific and artistic, [contemplative](#) and cultural, philosophical and political. It is an allegiance we owe not just to ourselves and each other but to the planet itself as home of all known life and its as yet not fully written [history](#).

Next blog: physics and metaphysics

Like *Esperienza's* bold and flowing course  
 The never-fixed water forms the earth.  
 In blood, air, vision, thought since birth  
 Time moves all things which shape us by their force.  
 Perhaps it's better that his giant horse  
 Was never finished, Leonardo's worth  
 Untethered from such monumental girth  
 A monarch's image grazing history's gorse,  
 Instead collapsing halfway through design.  
 Old Saturn born cannot just always build  
 Since every minute might subtract or change  
 Unknowably. His kids are next in line,  
 Complexities of past to be fulfilled,  
 Geology of fragments to arrange.

Endings are *nirodha*, our third of Four Noble Truths, which means they are inevitable. This is a good thing! No need to mourn or panic, just to end. Both Dante and Leonardo were very interested in Time per se, Alighieri painting Fortune's portrait in Canto VII of Hell and da Vinci immortalizing – notarizing really – the flow of 1473 in earth, gravity, river, and civilization. Machiavelli used Leonardo's image of time, rivers cutting soil from one bank and depositing it on the other, but felt offending Fortune was the better play (or felt saying it was the better play was the better play).

Jury trials in the seventh amendment are slow and uncertain but unassailably right. No short cuts! Commandment seven is not so very different, as if to say "you only live once." The golden age of Saturn is gone, but admitting that is part of finding peace.

How does the *Commedia* end? Quite excellently, simply put:

142 A l'alta fantasia qui mancò possa;  
 143 ma già volgeva il mio disio e 'l velle,  
 144 sì come rota ch'igualmente è mossa,  
 145 l'amor che move il sole e l'altre stelle.

Here force failed the lofty fantasy:  
 But now my desire and will were turning,  
 Even as a wheel that equally is moved,

With the Love which moves the sun and the other stars.

How Leonardo ends is far less clear, clarity being OK of course but not everything can always be clear and even clarity is sometimes far from simple. They say *John the Baptist*, so dark and curling, was Leonardo's last painting, but I'd pay more attention to his last drawing which might be *Woman Standing in a Landscape*.

One thing I've come to appreciate while writing and reading about Leonardo and Dante so much, plus a little Machiavelli, is how much the main historical eras overlap or even nest together. It's occurred to me, for example, that the city was the main technology of antiquity, the church the main medieval technology, and the modern one the machine. Indigenous ages being earlier and first had the technology of sustainability I would say. This means that now, as machines threaten to destroy life on earth, we must learn again what we first forgot: sustainability. This while the other three won't or can't go away either. Another four-part process I think about is when you meditate, you take heed of four items really: time, form, motion, and mind. This chapter is Saturn, or time.

Machine covers not just cars and trucks, but computers and even computer programs. Machines are dangerous because they supplant natural processes without being accountable. This is, you could say, this unaccountability, the absolute essence of hybris which is pride or properly an act of violence. As Wiener said, machines make humanity disappear. This is well underway. What is the solution or cure?

Wiener said a polymath was needed, like Ptolemy, to re-humanize all disciplines and to do so all at once and all together. This is why so many people before modernity tried to “cover everything” in their systems. *Six Memos* talks all about this, I didn’t invent it. Was Leonardo this polymath?

The Visibility Memo, or fifth, talks a lot about Dante and visual imagination. It also contains the discussion of Hofstadter from *Eternal Golden Braid*, or *Gödel Escher Bach*. Basically the memo argues that visual imagination is as important to verbal imagination as vice versa and that they are intertwined. Leonardo said this too. Ought we assume he did nothing about this conviction, and that *Esperienza* can’t be an allegory for Leonardo because it wasn’t one for anyone else?

Four key icastic images I want to use to help end the last four chapters are: Fortuna, river, bridge, and Shih Ho (Biting Through). Isn’t chance the essence of Time, making Experience also its mirror, and us mirror of both?

Fortune means randomness in time but also probability: her wheel has four states. This makes it much like quantum phenomena, and some like Lee Smolin even say Time’s shape might be what underlies quantum gravity. Time tends to go directionally but wavers, like water does, when it hits things (*percussione come Terpsichore*). It also wavers with patterned waves or vortices not just any old which way. The Arno, our third river, and clepsydras like it, showed this to Leonardo every day as did other things like air, hair, blood vessels, politics, and yarn. *Vincula* means bond or chain.

Federalist No. 7 also shows how union counterbalances chaos. With more states, a squabble between one or two is less likely to implicate. Desire causes thirst, *tanha*, of the unslakable, *dukkha* sort, and thirst arises out of circumstances and attachment to them as is their wont. Yet if buoyed by friendlier currents as of better angels the contortions or knots are carried forward and away by the bigger better picture and so end. That is *nirodha*, which I had wrong and probably *samudaya* too: they are the ending and arising of suffering desire not of all phenomena *sui generis*. There are parallels of course.

The poet Wallace Stevens has been mentioned in the context of Chinese poetry which uses chiasmus and the I Ching, each having aspects of repetition and percussive, flowing and bonds. “Let be be finale of seem. The only emperor....” One can certainly perceive echoes of Leonardo’s painting *Madonna of the Yarnwinder* in these patterns, and though one perhaps ought not mention it one does have a bridge. Since Modernism went back so often to what was thought archaic, might not the archaic possess more modernity than we like to congratulate ourselves it does?

The last four spheres of our excursion are also kind of like time, form, motion, and mind: Saturn, the fixed stars, the *primum mobile*, and the Empyrean, which are astronomy, physics and metaphysics, ethics, and theology, free sciences, per Dante. I suppose mind is a bit like observation, imaging, and the imagination; but is it not exactly experience, in a very absolute sense, the observer affected and effecting? Right livelihood!

We might well note that in Federalist No. 7 Hamilton again uses both English senses of our hypothesized allegorical title, experience and experiment. Divulging, as it were, in the final paper of all that these are the words of Hume is another indicator of importance. One might even say that accountability is the aspirational goal of the entire Enlightenment, the USA included. The closest image to the truth may be to say that Hamilton knew Machiavelli but also knew he was of the second rank. Of course, Machiavelli at times does say all he wants is Italian unity and liberty, citing Petrarch of the Three Crowns “*che l’antico valore,*” copping to no loss of idealism, virtue, goodness, or accountability, much less of experience and experiment. Masters almost claims he’s Leonardo’s twin, and Nietzsche’s “bad not evil” owes much. Does Machiavelli not betray *Esperienza*, as I assert he does, but rather implicitly establish her as the highest tribunal of every Prince in politics as well as the sciences and arts?

Nietzsche’s “If truth is a woman, what then?” is practically photocopied from *Capitolo XV*.

Yet further, Leonardo once advised “grabbing Fortune by the forelock” and Hamlet said “faith, a strumpet, she,” or thereabouts. Perhaps all is in doubt?

Suppose four pillars are Church, State, Science, and Art. Modern science and art are free peers of free peers church and state. Medieval science and art are not yet peers, nor church and state free. Machiavelli frees State from Church but arguably subjects it, and Science and Art, to the State. Unfree modernity or autocracy is the State subjecting all three which deteriorates all; free modernity or democracy is all four as peers. *La Gioconda* is a portrait of free i.e. modern science and art. Whether free modernity can succeed sustainably is the question of planetary history.

Where violence and fraud, not deference to *Esperienza*, are used to negotiate with Fortune nature and life are damaged. Excusing damage as harmless only escalates. East, the third direction on the NIH page about the Ojibwe Medicine Wheel, means daybreak and illumination, spirit, locating the early framers in Bruno’s “gulf” of *spiritus phantasticus* as if their starting point, their “*cose immaginate*.”

Yet union is no guarantee of virtue, and there is no simplistic solution “Machiavelli is wrong and Leonardo right because of ABC.” Right and wrong are not quite the point. I claim Machiavelli is right sometimes, but severely limited, whereas Leonardo is right in greater proportion and barely limited at all. Libraries have been written on this debate about political right and I must steer clear of or between them. Suffice it: *Il Principe* is missing the most important thing, the only way to salvage us, and that is *Esperienza La Joconde, una cosa immaginate*. The hybris is the violence toward Fortune, time.

Leonardo echoes Dante’s image of Fortune from *Inferno* Canto VII unmistakably, and as should be obvious too by now painted it. (All already admit he painted Beatrice, and what is *Esperienza* if not an internalization of Beatrice via Fortune, Nature, and Matelda, or not an internalization but a facing, bond, and chiral meeting?) Nature is partly Fortune, like human goods are, and humans are part of Nature, so both to see and to be require respect toward Fortuna. “He who kills a thing to find out what

it is....” Or as Leonardo said, “those who do not respect life do not deserve it themselves.” See the Pythagoras, and the Buddhism?

To mechanize *Esperienza* – the ultimate, absolute error – is also Machiavelli. The machine must remain a garment, worn and woven by but not replacing the human as is the motive for all coercion of Fortune. This may have been alluded to as internalized sacrifice, or coercion of *Esperienza* which is nothing other than death and the path to all that is unsustainable.

Lycidas appears in Eclogue VII, which also features song replying to song (per translation) and the reversal of time and/or identity as per Meliboeus, Corydon, and Daphnis. “Once more, O ye laurels,” and, transitively as Shearman said but didn’t realize, “thou shalt be good to all who wander.”

Stevens in 1915 may have quoted Keats re pigeons in autumn and been borrowed by Eliot in 1922 concerning processions across wide water. Maybe “Sunday Morning” has nothing left to say. (Though it does write of death, mother of beauty, and earthly mothers.)

Book 2 chapter 4, looking back, writes about the ML’s “empty” eye center and the *St. John’s* dual center. Clarke said the latter points “into the darkness” but that’s relative, and the chapter covers how gravity “goes up” vis-à-vis Einstein. “*Trasversale*” pertains, and said chapter also cites astronomy as relativity alongside “The Cruelty of Man,” “Of Selling Paradise,” and Wiener (or Leonardo’s) “network in time.” Blog 7 of 2021 discusses epicycles as unwoven complexity, text and \*teks- as weaving, *pertrattato nodo*, and the labyrinth which simplifies and harmonizes the network way home.

The NIH page about the Ojibwe medicine wheel includes Frog Clan as relating to water and cleansing. As bookends to arising and *nirodha*, the path avoids suffering-knots by allowing attachments to pass away. The flawed kings, good-hearted but unskillful in rule, learn this in *Purgatorio* VII, and *Paradiso* VII explains both why consequences follow consequences in due order and why the elements mix and turn each into the other in time. Of course weaving is done with the hands, and a point having

too much light to see is in a sense dark. Falling upward is the mirror to falling downward. Bodies do not orbit centers but revolve in unison with their companion elements.

I am considering trying to call my handheld computer my “HC” or my “H,” or “hand.” Of course this is unattractive – an amputation – so the archaic obtuse other name will continue to prevail. Forever?

One earlier source I found said every chiasmus has a bridge, after the turn. This makes the “other half-arch” which catches the first a kind of rescue. The point between them is the impossible, Stevens’ “arrogant, fatal, dominant” chi. As Beckett said the hazard is in the identification which Calvino saw in *Visibility*. Beckett’s first publication was about Dante so how isn’t that modern?

Grieving a very good friend, I opened the Gideon’s facing east, much like in *March*, and found a bit about hearing the wind but not knowing where it came from or where it’s going. I liked that. As a Virgilian lot one could do worse. Perhaps *Sunday Morning’s* seated intelligence embodies fortune too, partaking of time, form, motion, and then mind:

Yet how Fortuna relates to Mona Lisa, and *Esperienza*, the bridge and garment, you may be wondering and have a right to wonder. As if before sleep, let’s revisit the *sottili speculatione*: living where I live, sans sea or ocean, I visit the river. Why did I visit Florence in 2019? Because chance chose Calvino for my book club in 2018. Why did the Louvre workers strike that day in late May, and why was that the day we went there? (Chance, and too many tourists.) Why did I decide to view, and commit to experiencing, the ML on that airplane flight in August 2019? The strike, *Six Memos*, and the Leonardo’s Books show at the Museo Galileo, plus everything.

On the airplane, why did I decide to look at the ML fully for five meditative minutes? Perhaps I needed to meditate and wanted efficiency. Or perhaps I knew I can be wordy. Perhaps I had a moment of empathy. Or, chance.

Looking at the postcard of it, of *La Joconde*, why did I see one river on the left, then one on the right? Maybe that's what's there, or because I'm biased. Why did I then say "the bridge is like a river too, that flows into the flowing shawl: that's three rivers"? (To myself of course). A mix of reasons, but it happened. I then said "these rivers are my reading," and then, "isn't the eye contact between us a river too? Four rivers!" That was it, time was up. But how to get Fortune from this?

At first I was sure someone had written about the rivers, bridge, and garment, so I checked the internet right away – nada. I was still sure, and read a bunch more. Articles and books I read, and Leonardo's quotes on the quotes website. Still none. One book I read about the ML compared her to Dante's Beatrice and the Renaissance poetry of "the beloved lady." The pandemic was raging, I had nothing to do, and had never read Dante, so I decided I needed to, and kept blogging. Someone must know something, I thought.

Then *Inferno* VII matched Leonardo: *Fortuna* and *Esperienza*, visual and verbal matched.

I could list many other examples. Leonardo wrote "where good fortune enters, envy always follows." (He also said envy hates virtue.) Calumny, Apelles' allegory, is the weapon of Envy. Dante admonished those who calumniate Fortune, and Leonardo those who condemn *Esperienza*, in matching terms. Thus Machiavelli's hybris toward Fortune becomes a repudiation of Dante, with layers, but how of *Esperienza*?

*Il Principe* says the prince should use as much evil as needed to retain power. This is, frankly, ridiculous on a par with the three great failures of the twentieth century (Freud, Marx, and Nietzsche). It amounts to saying there is neither evil nor good – the ethos of machines. The year 1500 was not modernity's triumph, not by half, but its concession of defeat almost totally, the defeat of Dante's navigational plan. (Savonarola demonstrates the despair.) The *Commedia* mapped modernity, which is

not clock-ticks but development – formation – with parity: church and state independent, with science and art their peers.

Machiavelli embodied desperation and hopelessness, abandoning Dante's project of reform. His plan is a retreat, reverting to antiquity in despair of the viably modern, raising the State to absolute authorship. Leonardo saw this with full clarity, this defeat, as failure, cementing the fusion of church and state and rendering science and art their tools, weapons, decorations, and camouflage. It is failed modernity, medieval stagnation bolstered by emperor-worship, an evasion of development fueled by envy and yes by calumny. We still have it today.

The portrait at hand, then, is a mirror of experience and experiment which transforms. It depicts modern science and art, modern meaning free, and invokes their occurrence in us. This couldn't be labeled like the master of the banderoles, blurted, broadcast: did Leonardo want a noose for himself like the one he drew of the bonfire prophet's? Leonardo wisely, guided by nature, chose weaving and time, believing in transformative imagination, in Dante, knowing Machiavelli did not. "Pale ire, envy, and despair" help illustrate autocratic and free modernity.

Leonardo's effort was to successfully change out of medieval stagnation into modern development, not conceding defeat, despite the inevitable risks and damages of time. He knew it might never happen, or take five centuries, this success.

Most important however is to return aware of Fortune to the portrait, the icastic image my subconscious signaled by "this matches a lot, remember it" like the iceberg in Visibility. Is the shawl, added late and very stylized, the sail of fortune? It was trendy in Florence circa 1500 for nobles to commission medallions or logos for themselves featuring a young naked Fortune standing on a globe or dolphin with a sail like Occasio for love and money. Branding you could say. The sail, visible in

Warburg's Atlas, morphed into tailing ribbons which became dolphin-reins, fabric to seize mercantile gain. Some of Leonardo's emblems have these scrolling ribbons.

If the first truth of suffering derives from "bad stand," like *sistere*, not "bad axle," it makes sense to sit and observe when impossible desire arises, thereby to allow *nirodha* and passing. *Fortune's Theater* is a new book about this – the ribbon-reins and dolphins of financial opportunity I mean – and "Fortuna on the Dolphin" an article. Such greed was everywhere so wouldn't Leonardo certainly see its future which is obvious to anyone?

Pater in 1873 mentioned "thoughts and experience" and Clarke in 1973 contrasted Polyneices' – no Polykleites' – "narrowing of experience" to the ML's "perfection by inclusion." There's much more to the portrait than just Fortune, even if Caerus' forelock is insinuated, yet the Fortune that is there is soberly seated, one's peer and *maestra*, dignified and beatific like Dante's.

Learning from *Esperienza* does take forethought and sight, and we still might miss our Opportunity to make a sustainable planet. Yet this is not the shabby indulgence of private greed, which Leonardo disdained, or de Tocqueville's privatism which couldn't be more wasteful.

Thus a flowing garment mirroring rivers and randomized flow is like fortune too, as the key dynamic of nature – water being "the vehicle of all life" – affirming Leonardo's image of "time present" which is like the water one's hand touches in a river before and after all that passes. See *La Gioconda's* hand, the one touching the cloth, more eloquent than Adam's in the Sistine? Like Dante's reverse gravity our doubt gravitates us to the earth and bonds *Esperienza* with Nature, hands clasped, meditating with us.

Sadly, *Inferno* VII does not quite specify Fortune is sitting, though various sculptures and images from history do. The dignity accorded by Dante will have to suffice as contrast to Machiavel. (*Woman Standing in a Landscape* may also be Fortune.) Consider too that Machiavel says it is better to be

feared, a Mosaic intimation, than loved as Dante imagined the universe was allowing it to move. Machiavel, in part an evil machine, acknowledged no need to align with nature's will or the will of the set of all spirits.

I've not read everything, anxious of influence to be sure, but many have written about Fortune. It's a concept worth revisiting I'd say, once worshipped or studied as Isis Fortuna in Rome to rekindle the Egyptian influence. Partly it's about boundaries and not trying to take over what belongs to time, chance, cause and effect, experimental method, or the nature of consciousness. Leonardo was very clear "you have to step back from your work." This is a letting go or relinquishing to Fortune her *regno* or domain and applies to liberty and justice as well as resilience and progress in republics. It is never and always a perfect time to meditate.

Not to be too overly shoddy, Dante also wanted a "good emperor." Italy's unending warlordism was for him a major obstacle to human betterment. Leonardo certainly wanted good government but seemed not to believe church or state, even reformed, alone would get us there. I'd say he thought science and art were the primary new need, as you might expect of an encyclopedic engineer. World politics dead-ending at a regress lately to illiberal state orthodoxy proves him largely right.

Like the *vita contemplativa*, Rachel or Beatrice with hands at rest, the *vita activa*, Matelda, also needs the lotus rooted to the earth which floats on water. Saturn and Time proper no longer rule all, as they once did, but their *forza* and being remain. Not seeking to coerce Fortune means respect for *Esperienza*, and you could call this study, practice, or friendship. The personification is for icastic purposes the way faces after waking restore memory, allowing default mode network rest, mindfulness following unbidden like birdsong:

The emperor from Corsica kept *La Joconde* in his bedroom, presumably for some reason of preference, after the revolution. This embroidered her fortune into his, involving thereby the novelist

from last chapter before the fact, and in a way producing the emperor without his knowledge.

Somewhat similarly, *Purgatorio's* previous canto compared Florentine politics to weaving. Is political greed purified by being political? Certainly not. All greed is waste, loss, and blindness.

The Seventh Amendment takes a risk by not letting the chosen judge decide, chosen by the crown, but twelve ordinary citizens. See how the hands-off approach nurtures stability, right measure, and feedback? Trivial or not by now that was the premise.

Clinging is what must be avoided to allow *nirodha*, and to keep thy heart light, the grasping if you will at the river's current while it passes. We may shape but not seize the current. It's not so much about obedience as reality and necessity. Leonardo saw this in the Arno and in his own path, kind of like the 1473 drawing *quatre cents ante-Pater* which embodied water, gravity, earth, river, city, and horizon all in one. In one sense it shows nothing, but in another how each present time includes all. The carrying away is not all loss because it makes the present possible as well as new. It's difficult to trust *Esperienza* before the fact but easier after, and without trust she cannot guide. De Tocqueville meant this when he said equality can only increase insofar as virtue does, and how can virtue increase but by transformation? This brings forgiveness, the Fates, and Buddhism into play.

Leonardo said, "life well spent is long," meaning long enough for what must transform to transform. This compares to Cajete's description of "the heart way," a path or process. It's characterized by a wise equanimity akin to Leonardo's explanation that water nourishes plants whereas the sun gives energy and life, one more directive and the other less. Learning from plants is important history.

Thus we may encounter Saturn as a purification downward, back to a kind of center, characteristic of ending and necessary to it. (Such respiratory, circulatory cycles are characteristic of all sustainable life.)

Befitting the equinox today, phase most like labyrinth, recall Leonardo saying:

“we might say that the earth has a spirit of growth; that its flesh is the soil, its bones the arrangement and connection of the rocks... its cartilage the tufa, and its blood the springs of water. The pool of blood which lies around the heart is the ocean, and its breathing, and the increase and decrease of the blood in the pulses, is represented in the earth by the ebb and flow of the sea...”

Hippocratically, like any form of life, Leonardo discerned various paths to death and passing, the worst like mere neglect well worth avoiding. Transcending these to reach sustainability, a natural life-cycle, is an aspect of systems thinking Capra may not have seen (or perhaps did, my copies mostly unread, or not seen as the common mother of science and art). Leonardo likened successful adaptation to achieving flight, freedom from annihilation, and a kind of victory. Yet victory how, in what possible sense? He derided almost every conventional definition of it much to his chagrin, like any engineer ruling out first what won't work.

We approach closest by many small approximations in sequence, a first premise perhaps being to recognize modernity as badly incomplete even to the point of collapse, or as Leonardo called it, monstrous. The second or first is the arch, in principle, where each side holds the other up as the two halves of the planet itself do. Leonardo explained this as two weaknesses forming a strength, and we might see Machiavelli's example of Theseus and scattered Athens here (but not quite).

This arch built by Leonardo is the means of transition. We must form the second half in order for the design to function, and that function is the form of successful adaptation. Leonardo couldn't, that is, even if he had wanted to, be both halves, and for us to be our half we must view the *Mona Lisa* and discern – see – the name of it. Experiencing the name is the completion of the work and the transformation into the sustainable era: “who are we, who is each one of us, if not *una combinatoria d'esperienze?*”

By further happenstance two days ago I read a 1900 copy of “The Unknown Masterpiece,” “*Le chef-d’oeuvre inconnu*,” from *Visibility*, by Balzac. It paints the opposite of what I mean by *Esperienza*, sacrificing the human for control of time, but mentions Rubens so I searched for “Rubens fortune” and found the great canvas of the Prado. It has the globe, sea, sail, ribbon, wind, and hair images quite clearly (some resembling *Woman Standing*). Does Steven’s “Sunday Morning” sitter represent time, experience, or fortune at all? Beckett mentioned fortune in his Vico-Joyce essay, and Leonardo designed his portrait to survive and navigate all this history even to the present day and the present moment.

Since every chiasmus includes a bridge, which spans the midpoint, we must consider it to be the estimate which brings solution even if bitter to the insoluble and incalculable absolute. Each bridge is also something like an arch, Leonardo’s colossal design for the Bosphorus being a single one even, and reverses direction by compression to lend each chiasmus its ring form. (The unit circle does this by alternating negative values for pi with positive on the 2-D axis.) Hence Time-Form-Motion-Mind creates a ring as does Sustainability-City-Church-Machine of course without either being fully predictable or unpredictable. In this involuted sense mindfulness initiatives are perhaps closely tied to prospects for peace and climate resilience, preservation of nature, and the like.

Frenhofer is in the truest sense trapped, even his poetry, where Leonardo sought to be free and embody rather than represent cognition. In this pursuit he fled Medici rule which failed to protect his art. Dante foresaw this, having experienced it directly himself poetically, but Machiavelli took the more reckless approach of flattery and insinuation. These are all of course various stands on history. Sometimes ekphrasis of Leonardo’s seventh painting *Madonna of the Yarnwinder* highlights its surprise toward destiny or foresight of events, their apparent incongruity, which is in fact a quite orderly gathering of the varied strands.

All this brings us back or returns to Shearman's transitive painting, like Rilke's game of catch, which he saw only germinally in the ML but I disagree somewhat – it's we who are too germinal, not he!

Having marked *Capitolo XII of Il Principe* on "*l'introduttore*" – the innovator in politics – I noticed again its claim belief must be enforceable by arms. There's a historical backwardness here because that's the ancient way – enforced belief – not the modern way, where belief is freely chosen. Call this the limit of autocracy in that what is imposed is not actually belief and definitely not modern. Hence Leonardo's doubt of the whole "control of history" model Machiavelli worked at and so many others like him. The natural, necessary consequences of the means nullify the ends yet the illusion they won't is strong enough to exhaust all earth's resources and time if not successfully avoided. That's Leonardo's peaceful victory, one we can all join in and help.

Maybe this is the *Machiavellian Moment's* Machiavellian Moment. Tyrants' unslakable thirst, suffering desire, is quenched by meditation or allowing an end. Meditating feels bodily like breathing yes, refreshing, but then as anxiety ebbs it feels much like abating or quenching of thirst. Meditation is not anything exotic, but rather part and parcel or even the core of Reason as ideated by the Founding Framers. It's called many things and everyone in all species practices some form of it already so all we need is a bit more and a bit more more.

How can such a claim be forfended? It's utopian and hampers government too much you could say. Really though it's mundane, in the good way, not utopian, unless you want to strangely argue moderation is incapable of change and only radicalism is realist. The true Leonardo is plain down to earth, oppressively ordinary unless you actually act on it, so the danger is almost literally nil – I mean the risk. All resilient systems must be cyclical and therefore at least somewhat boring. Furthermore, this basic skill is the basic skill behind all basic skills. Take fishing. It was poetry, visual art, philosophy,

engineering, and sculpture which first imagined a spider web for water while chatting, chose a bark and branches, then sculpted the product, meditation in effect throughout and covering each transition.

See how even unwinged Fortune's sail is also bond, tie, and bridge, and Matelda thus like Fortune?

Reading some old notes from January or February 2019 I saw the word "experience" was already gestating in my thoughts, no doubt from the icastic final page of *Six Memos* – 124. Therefrom be my bias, such as it is. It's a good word for sitting with time, out of many attempts, which is both the essence of Saturn and respecting Fortune. Much emerges from this. Breath is another word for it, waking rest, empty cup, sun as time in *Trionfi*.

A final rumination on Fortune: apropos of *inconnu*, which mentions Giorgione too, I revisited *La Tempesta* which I failed to see in flooded Venice around 1997. (This connected it for me to the floodwaters.) Noticing the bridge in it, and in *Il Tramonto*, I checked Harrison's book not finding it. The *Tempest's* lightning, stork, water, mother, and soldier are still undeciphered. Perhaps they are Dante's lightning not breaking but creating a bridge, both distancing and transiting to antiquity from the medieval, nature from law, art being born of Fortuna? (I haven't found articles about this yet.)

Searching for "meaning of bridge Giorgione tempest" I found some alchemical readings. Alchemy back then was a mix of science (Brahe practiced it), fraud, psychology, and you name it. I distrust alchemy stuff generally but noticed the phrase "*aqua pontica*" which means "bridging water," also called "*aqua permanens*." The speculation was Giorgione meant this in his *Tempest*. Highly questionable of course; but searching *aqua permanens* I found Jung's thoughts which are less shaky I'd say, and since for this trilogy I've used the *I Ching* in part because of his introduction on "The Caldron" his perspective is at least relevant, dead wrong though it may be. Jung is both in *Six Memos* and infinitely better, less dead and less wrong by orders of magnitude, than Freud.

For Jung said *aqua* is a symbol of the union of opposites in time, hawk-pairs' soaring joust, alchemical yin and yang, a union which flows and bridges conscious and unconscious permanently and everywhere (since poetic license applies). He even saw common-sense mortality and livelihood in the Axiom of Maria's four-part Terpsichore.

My main hope is to feel at home, present, and with time.



# THE MINDFUL MONA LISA: PHYSICS AND PHILOSOPHY FOR A SUSTAINABLE WORLD

By Max Herman  
Friday, 10/07/2022



Sphere eight of the ten celestial [sciences](#) defined by Dante, following the seven [Liberal Arts](#), is the realm of [Physics](#) and [Metaphysics](#) represented by the fixed stars.

The Greek prefix “[meta-](#)” actually means “after or between,” not “outside or about,” and this subtle mistranslation strongly influenced post-Aristotelian philosophy which mistook Metaphysics to mean “outside or about nature” rather than “the books of [Aristotle](#) grouped after the Physics.”

Recognizing the distortion caused by placing wide areas of philosophy (like [poetics](#) and politics) “outside” or “about” physics -- from *physis* or *natura* meaning approximately “universe” -- parallels Leonardo’s rigorous [method](#) of [integrating](#) all sciences and all phenomena holistically. He admonishes his peers (past and present) who “write that you possess information of those things of which the human mind is [incapable](#) and which cannot be [proved](#) by any instance from nature.”

Many questions are simplified by defining large swaths of knowledge as external to nature because observation and [experiment](#) become irrelevant. Authoritative or arbitrary conclusions, if not subject to verification in nature, can prevail simply by virtue of frequent repetition, custom, or [interest](#).

Unfortunately this false simplicity obscures [interconnection](#) and masks much of reality from the philosophic enterprise. Not only are humans separated from the observable universe (like mind separated from body) but so are [cosmic](#) fundamentals like first causes and the limits of certainty for which modern physics has ironically proven so indispensable. Misreading a short prefix helped calcify historical barriers to inquiry which

still plague and obstruct our efforts to [address](#) climate crises, inequality, ethnonationalist warfare, and [other](#) existential threats.

[Santillana](#) suggests Leonardo “unwittingly absorbed massive doses of Aristotle, which will slow down his thought.” Yet Leonardo hewed closely to what he could observe, rather than what was written in academic texts, also avoiding the [Neoplatonism](#) of his day in favor of a highly modern and pragmatic empiricism. For [Santillana](#), “Leonardo discovers...a universe in which everything is immanent physical clarity, where nothing is fixed or transcendent, where everything is force, life, and movement.... fitting for a scientific artist.” Fritjof [Capra](#) similarly [illustrates](#) how [Leonardo](#) was a true systems [thinker](#) who saw all phenomena as flowing processes governed by network patterns, [cycles](#), and hybridity.

Leonardo focused on *physis* and saw all [phenomena](#) as natural. Even our own senses, [faculties](#), and behavior are part of nature and follow its principles. Humans cannot step outside of nature and control it -- a pleasant illusion -- but rather must continuously investigate and understand the [interconnections](#) on all [levels](#) of which we form an interwoven part. In order to re-engage with nature and physical reality Leonardo had rather to “step outside” the authoritative knowledge and settled theories of his day. Through this rigorously modern turn he became Santillana’s “man without letters,” moving beyond conventional frameworks, by using scientific method firsthand and creating [aesthetic](#) images informed by direct [experience](#).

The image chosen for this third-to-last blog of the year depicts the deity [Fortuna](#) in the aspect of [Occasio](#), or Opportunity, with hair blown forward, holding a convex surface atop a broken tree from which a winged figure takes flight. This could be winged Fortune, or perhaps [Nike](#),

representing successful adaptation or “victory” over adverse conditions. Leonardo may well have designed this [allegory](#) to imagine science and art liberated from medieval constraints, free to develop beyond their nascent immaturity, thereby foreshadowing today’s [hope](#) that sustainability will achieve real impact before the chance to make a meaningful difference passes us by.

Next blog: sustainable ethics

Philosophers' stone, material to build  
 Celestial love of wisdom, xylem in helix  
 Dissolving and dissolved it may affix  
 The ladder growing leaves from wood fulfilled  
 With polar waters. Sequence taut and rilled  
 Evading gravity it clings and places bricks  
 To constellate all nature's metaphysics  
 Three times around, monocerous yet willed.  
 Necessity in this regard explains  
 Why stellar streams like rivers in their banks  
 Stay fixed in motion as eternal guides.  
 It flows forever, ceaselessly disdains  
 Imprisoning in untriumphant ranks  
 The dragon sea Marduk-slain in tides.

Month eight arriving suddenly but seeming after many years the trees are golden. It's a very brief time usually, as brief as spring's temporary gold but sometimes easier to savor. It's quite wonderful though so I'm thankful especially today.

The eighth amendment precludes exceeding cruel or strange penalties for crime. These are things like torture, public spectacles, and medieval machines like the brazen bull Dante told of. But why should the Prince of days have any constraint? Some say that only a free hand can frighten away the specter of disunity and rebellion. Quite a few regimes across the globe still indulge very freely in such logic and sow and reap its harvests. Yet the hunter with heart, as Cajete describes, has respect for all living things, necessity, and piety. The greatest eruptions of bloodletting known to history are usually cases where people, plain citizens, whirl into a frenzy and glut themselves on the unusual. Sustainable modernity aware of causes and consequences demands otherwise as much as realists might protest.

Still and all one may not steal. This commandment has a modest place, almost as far from first as you could imagine, and though stealing causes too much wasted time it shouldn't be any cause for amputation, incineration, dismemberment, and so forth. Only the distemper of medieval theatrics laced

with Romanticism gone gangrenous deludes itself otherwise. We shall avoid that enemy, which hates and envies all Science Dante shows to be peacefully contemplative, and Leonardo's form of *Esperienza* is our guide and *maestra* which is to say source of successful delivery, healing, and resolve.

No effort could be more wrong, more tainted with poison blood, than conscious love of slaughter.

The Calvino-Hofstadter nexus, topic of web log eight from twenty-twenty, is merely a simple observation that Calvino's proposed title for the unwritten Sixth Memo, Consistency, is the same word found in Hofstadter's *GEB* chapter IV. It's – both are – about the nature of intelligence, literary or machine, and hence about what humans are. Calvino answers “what are each of us, but a combinatoria of experiences...” and this relates to Hofstadter and Gödel and incompleteness. The eighth web log of twenty-twenty-one is also about random, incompletely knowable geometry as planetary motion and history of human combinatoria.

Certainly the Young Fate, who spins the thread, of Valery is about awareness and use of choice. (It is coincidence that the title of web log eight twenty-twenty-two is the same as Capra's teacher's.) Allowing these events to happen is somewhat like settling downward, as Leonardo said all motion being toward the center of gravity, out of the sphere of time into that of form detected largely by the brain. The particular form is not quite as important as form itself, or noticing, which is like the shadows of various objects overlapping or Dante sensing the weight when he and Virgil crossed the river Styx in a boat. *Inferno* VIII, where they are blocked at the Gate of Dis, shows why the procession is more weighty than just a library trip. The green angel guardians of *Purgatorio* VIII allow learning to continue, and Martel in *Paradiso* VIII explains why Nature sufficiently provides even though people vary. The gate is made of iron.

It bothers me though that Santillana ascribes much of Leonardo's voice to our antagonist for the purposes of this play, Machiavelli. Maybe I read that wrong and yes still don't know Italian. Maybe he just meant similarity but since they met prior to the *Mona Lisa* it is certainly possible that Leonardo learned to think and talk from his evil colleague. (One would have to compare the writing before and after for which I lack time here alas.) Does Santillana believe Machiavelli made right effort, accepting (outside *Il Principe*) that the people know more than the prince, and admirably sought to ground human society in physics not "*cose immaginate*"?

In meditation, the breath is like the river. Its form is permanent, mostly, like rivers and stars, certainly permanent enough. This makes it a good form of awareness for traditional breath meditation which is the kind I do.

Jung in discussing *aqua permanens* mentions "experience" enough times to make clear that is what it is, an experience: "But some profound inner experience of the Self does occur to most people...." This shows some of the problems with Aristotle, what things are and aren't, and how he obscures metamorphoses and interaction for the sake of simple authority which may be an early need but isn't the whole picture at all. You get a better picture from Eclogue VIII, honestly, of both sides – mortality and home – in rustic tones. Compare this to "thee, and all the woods and echoes mourn." It's not quite indigenous, no sir, but isn't all that far away yet with those echoes.

Yet what about evil, triumphant, on the march? We see it everywhere. It's like a cancer or toxic waste. Even Federalist Paper Eight saw the danger of hostilities, war, between disunited states, which could taint politics forevermore, entrench standing armies, squelch democracy in the cradle, and breed just another monarchic Europe much like Dante's. No thanks. Ben Franklin said it well: "a republic, if you can keep it," and that means tending too.

Calvino mentions “*di letture,*” regarding “what is each of us,” translated as “books we have read” just before “things imagined” (*d’immaginazioni*), but it really means “readings.” It’s a carefully chosen word and deserves careful reading. It means “lectures” too, as well as icastic images registered like a flock of robins in early snow from book one chapter three.

Or go to Paris, as I soon will to close this trilogy, and see the *Saint Anne*. Is she not Nature, the very hills and mountains, vast in scale and height? Her daughter, Leonardo wrote, is painting, parent of every poet, each being her grandchild and related to the divine. See how the stones rise and crumble and traverse, taking form, making soil for trees, flora and fauna, innocence and responsibility. And they call this blasphemy, on their scannel pipes!

Still I fear Santillana may have read Machiavelli aright and I not. Well not fear exactly or only, but wonder, might be what to call it. Like Masters, who says Leonardo and Machiavelli have the same way of thinking about fortune and nature as a river to be shaped and controlled by science, maybe Santillana sees the Machiavel as Leonardo’s kindred soul. Make we no thesis of the miller’s plight, no, but I don’t think Masters’ “science of power” quite compares to Leonardo nor to Santillana’s picture of him. However Masters is quite established so you should trust him more than me without question.

Maybe Masters is a fool who hath said in his heart there is no God, and replaced it with technocracy which has gone mad, forgetting Jung said in *Man and His Symbols* “From the psychological standpoint, a genuinely religious attitude consists of an effort to discover this unique experience, and gradually to keep in tune with it....” (Who knows if Leonardo had any care for all this, though he did write “*ermete filosofo*” at one point.) Doesn’t Calvino say we *are* the things imagined, partly? When Leonardo says Nature should be the Maestra of Art (meaning science too) he basically means Nature should control us not vice versa. Imagination led and taught by the river of *natura* is not the same as control over nature by science or coercion of fortune. This is really all I mean: Leonardo is better, a better scientist and a better artist, than Machiavel when it comes to imagination and nature; moreover

Leonardo knew this and took direct action in response by alliance with Dante where Machiavel had thrown out the baby with the bathwater while still throwing out the bathwater.

However like I've said, I've only read some of Machiavelli as in *Il Principe* daily while writing this. I could have him all wrong, just as I could have him exactly right. You must decide. Regardless, "the ruler of princes" is another epithet for what Jung called the Self. And I can't have it both ways. No, Machiavelli is a fiend who must be subdued and subdue him I shall, namesake, semblance, and brother. "Ecco."

The second key ending image to mention is river. Like form, it represents breathing somewhat closely but also much else. It's a bit like event, Occasio and Nike, rather than just pure time alone, and resembles the left ventricle sending blood to the lungs. The stars are like form, akin to the love which animates rhetoric in Venus though in a differing scale, as *Purgatorio* VIII portrays the three stars which were previously four. That canto is quite good on form by addressing the reader, archetype of form, directly then focusing on vision and the veil all within the fine image of being "moved to move beyond my mind." Similarly, *Inferno* VIII places outside the iron gates of Dis the criminal prince Argenti soaked in acrid filth and tearing at his own flesh.

Jung mentions "the old Arabian alchemist, Morenius" and without doubt Leonardo asperses the speculators and "seekers of gold" saying clearly that all metals have their own unique element. Yet those of his age were not, as Shearman reminds, "simpletons except with a brush or chisel," and Leonardo could surely play the game of metaphor as well as any; so when he writes "when the thing loved is base, the lover becomes base" we should listen. Same as with Bach.

One of my first favorite Leonardo quotes in 2019 was about how to change a river's course, little by little with small changes, into the direction it already wants to go. This differs. Perhaps *Paradiso* VIII on the diversity of talents pertains re Sterling? Urgent sociality plus individuation was the model I

believe. If we consider predictive regulation, i.e. forwards, does Machiavelli work? It's not just the Prisoner's Dilemma that fails but evolution itself is abandoned absolutely.

A note on Valery: he imitated the *Notebooks* almost page for page and wrote *La Méthode* mayhaps contra the café. What might *La Jeune Parque* emulate? Nothing? Maybe. Must re-read. Compare Dante's "high fantasy" and Leonardo's "exact fantasy" to *Il Principe's* banishment of *cose immaginate*; see the difference? It's real and it matters to the deepest and highest levels. It concerns the true mirror, up to nature, where the eternal are. (*Quolibet Tempore Ultro Citroque Continuabilis.*)

Valery called his 1917 poem *La Jeune Parque*, which many consider inexplicable, "the painting of a series of psychological substitutions and in sum the changes overtaking a soul in the course of a night."

The painting talks directly about the stars:

Omnipotent, alien, inescapable stars  
 Who deign to let shine in the distances of time  
 Something I cannot conceive—supernatural, pure;  
 You who plunge into mortals to the depth of tears  
 Those sovereign rays, weapons invincible,  
 The shooting glances of your eternity,  
 I am alone with you, shivering, having left  
 My couch....

And soon after, "I saw me seeing myself." Why are we so sure Leonardo and his time were crude, thick, dense, unaware of themselves, and that we are the opposite just because of clock-ticks? We are likely the more interred, and more unconscious of accrued mistakes. It's better to see Leonardo as our equal, like Maimonides and the Buddha too.

How may we find settled peace, gravity, union with the stars? They are high, but in another sense below, Valery using all capital letters for emphasis:

LET MY EYES, FIXED IN HEAVEN, TRACE MY TEMPLE,  
 AND LET REPOSE ON ME AN ALTAR UNEXAMPLED!

It is reasonable to ask, even doubt, whether poet eight is attempting here any references to Leonardo. I believe yes. Consider: “Where is my swan trailing, seeking his flight?” Imagine for a moment that Valery may have both the seated *Mona Lisa* and *Woman Standing in a Landscape* in his thoughts while writing this. What can we make then of “Ah, whoever finds the print of my bare feet, / Will he cease for long to think only of himself?” (I am borne darkly, fearfully afar.) The vision revolves however, throughout the poem like a thread, asking “In what blind turning did my heart melt away?”

I had it wrong, it is *le ventricule droit* which sends blood to the lungs.

Or simply enough for our purposes here: “Let the face become a breathing,” the river of stars whose form contains our sight, *continuabilis*. Is “The Spinner,” “*La Fileuse*,” also about Leonardo? We fear to do our part so it remains undone, perhaps no longer, the work being the firstborn....

Santillana mentions the definition of *physis* by Thales (the Ionian) as water, meant figuratively somewhat, and plenty of creation traditions start off with water. (This isn’t all wrong since factually DNA did appear first in earth’s seas.) Leonardo wrote in his notebooks:

The lover is moved by the beloved object as the senses are by sensual objects; and they unite and become one and the same thing. The work is the first thing born of this union; if the thing loved is base the lover becomes base.

Setting aside alien Elvis and using common sense we clearly see a flowing property of interaction here. The elements being described – observer and observed – are moving, changing, and sequential as in a system like early earth chemistry, not unlike Aristotle’s “*pathein mathein*” meaning “to experience is to learn,” “what befalls.” Compare the crumbling rocks and particulate matrix found in Leonardo’s eighth major painting the *Saint Anne*: he illustrates increasingly small scales of rock, gravel, and sand.

Realistically water, like the tiger, may be the right element to describe all things. Air and fire are not quite things, more like the energy behind things which also flows, and earth is more like water than water is like earth. We know from other planets you can have earth air and fire but zero life. Therefore the yin-yang symbol is a cross-section of flowing water basically. Since Dante’s key concept for the Fixed

Stars may be said to be Science, and Leonardo's *Esperienza* (which means close to Science, but more exactly imagined like a Science of Science), it should be clear that not only does *physis* flow as *natura* but so do all the sciences and all the arts which are, as if in a mirror, exactly attached to it not separate. Both Dante and Leonardo planned or wrote books about water.

In contemplating the *Mona Lisa* we must favor meditation over coercion. It is in a sense a trap for coercive approaches, so go ahead and try if you want, but as you see and hope for more you may also cease to try. As a mirror, it knows not to banish all mystery nor make an idol of it!

Rivers are also mundane. I visit my local one every day while writing. Yesterday I saw three blue jays in a little group, lots of yellow leaves, and a large wild turkey. Across the river from where I was the sandstone cliffs I hadn't noticed before were quite majestic, not unlike the cliff of the *Saint Anne* one imagines. The expanse of wide water, like a different world, has an effect even in ponds and brooks. Therefore *Inferno* VIII crossing the Styx is transforming.

There's a word for mentioning one of your own poems in a poem, and Dante does this in *Paradiso* VIII re "you whose love revolves the third heaven." This refers to the art/science of rhetoric, up in the sky, and the love is philosophy – love of wisdom. He explains this outright in *Convivio* somewhat inexplicably. We have to return to things daily without knowing quite what we're returning to. This is akin to how rivers change second by second. One's favorite trees collapse in ruin. I've had few happier walks than those in book one. Even the science we have in our minds is different every day we wake up, like the day before  $E=mc^2$  and the day of. Perhaps science is so new to us we don't yet realize this and get hung up. Why call fifteen-hundred so different if it's the same river and just a moment ago?

*Par example*, the "steam cannon" or *Architronito* of Leonardo and Archimedes, which some say implies motorized power. Foreseeing this (in whatever form) is how Leonardo knew one day we would have airplanes, cars, ships, and submarines. Such machines would allow the disruption of nature seen in

“Of the Cruelty of Man.” Therefore Leonardo lived with awareness of the destruction of nature by human folly just exactly as we do today, exactly or close enough. Perhaps even Archimedes did! And you don’t need engines to destroy.

What ties it all together, without reducing or falsifying, is *Esperienza*, experience and experiment, art and science. These go all the way back, even birds tying knots of papyrus to nest in. This permanent potential is found in *Purgatorio* VIII, the ford, *guado*, healing *isatis tinctoria*~

Ironically, all people and all nature have experience all day every day whether Leonardo painted an allegory of it or not, so even if true it might not matter. Or if it does matter, it might be harmful or risky not helpful. Is humanity really ready to say that art and science are important, and should be guided by experience and experiment? One may easily argue we are not ready, now is no time for a new allegory about such things. That may well be true. Equally true perhaps may be the idea that church and state have become too separate, and must become less separate for any given political entity if it is to remain competitive and survive the next century. Maybe the opposite is also true, that survival requires not becoming less separate. Societies can be multiple things at once, unmixed, like one leaf both green and yellow.

Therein lies the decision I suppose. Can Eclogue VIII offer me any guidance? Virgil dedicated it to the infant Caesar, saying he would serve the crown for his whole life. It has two shepherds singing poems, one pessimistic and the other optimistic. One uses charms, mentioning how Circe changed Ulysses’ men, in groups of three and the other emphasizes the deadly cruelty of Love.

To be honest I must say that the river all by itself doesn’t make a full picture. *Esperienza* is like a river but it is not exactly the same as one. Rather I might say it induces something other than itself somewhat like a mirror. It would be wrong to think that a perfect breath can be found which fulfills all

potentials. This must be part of the reason why the famous allegorical portrait in question has more in it than just a river or two. What if you just had one ventricle, and no atriums? Such a thing is impossible.

Where else might guidance be found? The eternal stars of physics and metaphysics? They are loving in their way. Can they help me understand what to do and what not to do?

If science is to be guided by something other than its exact self, what might that guide be?

The sphere of stars in Dante is, like Saturn was Saturn, the church triumphant in contrast to its corrupted state of *Purgatorio* and *Inferno*. Forms can be corrupted, and base forms loved debase the lover. What is the state of rivers today? Most are in flood or drying up -- Mississippi, Colorado, Ganges -- their great extremes an artifact of human science whose engines burn plants trapping heat. What other rivers, of events and history not water? Only Fortune knows all, but one can see lineaments of a Second Cold War. The First ended last century, after great harm to life on earth though not nuclear annihilation. The Second portends more great harm to life on earth and maybe nuclear or climate annihilation. What reaction is proper to such a river, its flood and drought? Nor Dante nor Leonardo stayed silent, though Machiavel straw-manned them for effect.

Some tout raw state power, dominating a bound church, coercing art and science in these times of crisis. This is "medieval modern" rule: more monarchy, orthodoxy, control and brutality portrayed as efficient, killing without remorse for tribe. Plenty won't be dissuaded. Despair of free modernity -- church free from state, art and science their peers -- is old as modernity and older. Machiavelli uses these rivers of despair, directing and diverting them for gain in close embrace. He's not going anywhere anytime soon, nor can he.

Is the better necessary too? Yes. Leonardo aspires to and delivers more. He knew it might not work, and it might not, but he did everything possible to make it work and so may we. Preserve *Esperienza*, as in a vessel, as master, trial, and test of right rule. Success is uncertain but possible, and thus its form our obligation: to contemplate and recognize its form.

The Second Cold War will end, perhaps without climate annihilation. What humans choose will matter. Will you choose *Esperienza* as guide? You may if you wish to. Thucydides, who explained the trap we face, followed *Esperienza* while describing annihilation from hybris. Hybris is a Prince ignoring conscious wisdom. The *Commedia* seeks to avert tragic history. All motion – all – is toward the center of gravity. “Love, Fear, Esteem: of Servants.”

Even as I seek to settle downward and through the realm of stars by peaceful gravitation my *agitato* seems to *risorgimento*. A short interlude of peace seems about to end in terrible tumult, but maybe I’m just imagining things. Dwelling on hope, justice, and peace in world politics is certainly no help to tranquility of mind. But why? What makes it so impossible? Infinite guilt and infinite responsibility, perhaps. It’s just simple math that people’s brains can’t stand to think about right and wrong too much. Talking and writing about it sometimes just makes the agitation worse, what Calvino called petrification or waste land, and of which Hamlet sayeth “something too much of this” and “about, my brain.” Leonardo as always said it very well: “one never tires of being useful.”

A rubicon of my own of sorts awaits me tomorrow. It’s unclear why the image has loomed so large: a web of wild grapevine at the river, yellow papery leaves and dark violet grapes, shielding the sun while I meditated on a sloping limestone. There is nothing for it, hesitant though I am without question. How can I discourse upon politics to any effect not having even finished re-reading *The Tempest*? One does one’s best. I finally see the lion rampant by the broken tree – how interesting. The Buddha said forgiveness does not mean the crime was just. There is justice in it and there can be redemption at least in theory.

In a less portentous current – may I find one with less angst – there is another oft-forgotten cycle in which progress and conservation in politics tend to mutate and trade forms. The new or innovative introduction, like say voting, may start off highly spirited but ends up mere institutional maintenance like scraping and painting old machinery. Whether moderates can have a meaningful role

in global history the next eight decades is up in the air, but one can try to be useful. For my teeming brain it may help to remember that breathing can be its proper form of right effort, and only those upon their palate fine may be. (Wiener warned, even physical machine social science would likely not tip the scale.)

Important correction: it was Franz, not Jung, who cited “experience” three times regarding the Self and the old Arabian alchemist Morenius. *Man and His Symbols* is merely edited by Jung, but he presumably approved of Franz and did write about alchemy. Since philosophers’ is plural, and implies building material, I looked up masonry and found it linked to a range of alchemical clubs and rites such as Agrippa Cornelius, the *Mutus Liber* book of changes, et cetera ad infinitum ad astra. Maybe white sulfur is theory, and red practice, the silver key and the key of gold? Who cares. Yet those striped pantaloons in *The Tempest* do make one wonder.

Proliferation of nonsense is sometimes the only refuge of sense.

Like Leonardo, Avicenna, who he read, declared alchemy horse manure. This may be taken to have been meant in the literal sense. Still, the venerable Hindu and Buddhist traditions also praised a certain transformative *lapis*, calling it Paris or Cintamani, and one may not call those traditions hogwash therefore. I personally consider alchemy, Newton’s avocation, a loosely admirable genre of scientific poetry and imaginary pattern. It even deals with, in appropriately nonsense fashion, the back-and-forth of inner experience with outer experiment as if the interplay of daily life and dreams. Still, my hoped-for Jung connection was in error, alas.

Perhaps Machiavelli was pulling our legs, and meant little or nothing in earnest in contradictory *capitolo VII*. My sense is that he did, often, mean his advice in earnest, and is accountable in either case for his work’s use by such Leaders as chose to avail themselves of it. This may rest now. Agrippa (see Spence, father of Scotland) lived when Leonardo did, and worked in Italy, but they might never have met. It is said Albertus Magnus discovered the stone literally. Perplexing. Yet like the falling blocks

Leonardo said we are, even Mozart a mason and secret rose clubs of Yeats and de Quincey trying to rebuild society, perhaps Physics has revolved into being First philosophy and Metaphysics – Poetics, the Politics, et al – may rightly now be Second, robed and lettered, *ingegno e virtu*.

“You who find delight here read on, for one like me.”

Another correction: *mutus* means mute, wordless except *oculatus abis*, not *mutatis*, change.

Yesterday I bit through the sole grape for this book, book three, by the Mississippi, tasting its marvelous elixir fading in late October, then meditated on a flat rock in the sun. I listened to the sounds: waves, two bridges, birds, wind, trees. Finishing I saw a woman in a scarf at the spot where I was going to swim, so moved to my second choice downstream below the jagged rocks that make small islands in high water and submerged myself for three full seconds to cleanse away my sins. With both hands I clutched the riverbed underwater, thinking to find some portent. In one hand I got only pure silty mud, in the other, my right, a large flat piece of limestone in the shape of a book, which I grabbed as I emerged from the icy cold waters. Returning to shore and sun, I set the silt and flat rock down to look for items. All I found was a small pebble, smaller than the wild grape, somewhat triangular.

Like the limestone book all this Jungian alchemical analysis was unplanned, stumbled upon. I wanted to verify if rivers or bridges were a cliché or blatant stock image in Firenzean alchemy to bolster my assertion Leonardo used them as metaphors. Yet there is no river image in alchemy, that treasure trove of nonsense baloney, nor is there any bridge. (I'll clarify some next chapter.)

There is however a swan in alchemy, which Leonardo mentions time to time, representing union of opposites connecting air and water. (See Arignote on *hieros logos*, essence of number and the heavens.) There is also a tree, made of seven planets, one climbs to heaven. This is very likely the broken tree in this month's image by Leonardo, the tree which he wrote was by ignorant authorities stripped of branches, fruit, and flowers *in tenebris*. Finding Jung's copy of *Mutus Liber*, 1677, free online I noticed his library sticker, with evocative heraldry and a winged figure offering grapes, which reads

“*rocatus atque non vocatus deus aderit.*” In second attempt at renaissance, diastolic, he is healthy who heals himself!

Maybe we believe ourselves to have left nature because, having ground down the finest grains of crumbled rock even further and melted them with fire into glass, then controlled electricity and light to flow through the tubules made thereby, we think we have replaced nature at zero loss. Leonardo was very clear that this illusion is impossible and that humans can never make a machine or object as well as nature. In fact we could only do so if we could create all nature over again and control its development in advance – only then could we say we had created anything as good and that’s strictly impossible to do. (Nature has to create itself.) Our strange role is to learn from nature, be guided by it, and live out our small part in harmony with it, creating not a world but a garment. This is what sustainability means and is our obligation and ability as humans to achieve.

Rivers are a physical manifestation of time, one of the most important ones for biological life along with temperature and the earth’s orbit. Garments flow too, and exist in time, but have a more daily emphasis or phase. One can only hope some of our worst habits will pass away soon! Is there a world beyond mere imagining where the golden rule is triumphant? Sustainability must partake of it in many ways, too many to count. Maybe that’s why “*La Jeune Parque*” talks about breathing and time present. Dante rises up through the heavens in *Paradiso* just barely able to perceive his surroundings, with Beatrice’s help, and even though it’s his job to explain what he sees to us back on earth he tells us he can barely recall even a glimpse. He runs out of time and his words are only a pale reflection, he says, but he tries his best and we have to use our own imaginations ourselves. *Paradiso* VIII affirms that Nature provides enough for us to do this.

Isn’t this why the garment and the overall being of the sitter in *La Gioconda Esperienza* resemble the rivers of nature too, not just blood vessels or just carved stream-beds but all its forms?

I cannot capture in these few short pages the meaning of rivers, nor of my home river the Mississippi (“great river”). They are more places than objects and only truly exist through experience like home, breath, and pulse, akin to the rippling of surface water reflecting light. As Leonardo said of work “it there finds rest” and “I thought I was learning how to live but I was learning how to die.”

Just as we may become our home, breath, and pulse we may become a place and the place may become us. If you live by a river you may sense this, but it could be a lake, ocean, forest, city, or even just the stars and seasons. There is an element here of the Buddhist path “right effort.” There is much that we cannot do either for ourselves or anyone else. I cannot experience a river or the *Mona Lisa* for you, nor even for myself exactly as I would please at all times. I can choose to visit it enough for it to become a place where I live and its form to partly become my own.

I believe this kind of presence with the forms of reality is at the core of right effort, and is related to what Leonardo meant by “The water you touch in a river is the last of that which has passed, and the first of that which is coming. So it is with time present.” Fortune is part of rivers as is Beatrice, maker of blessings. Since a river can become, if asked, the beating heart of peace, why not ask also “be thou me”? With good fortune we may settle into the motion of the stars or a river, and join with it, just as they find place in their own spheres. For similar reasons the breath is sometimes considered the home of being or self.

I have no authority to command you, *lecteur*, to look at *La Joconde* until you truly experience it in accordance with your own conscience, *coscienza, consciente*; but I have liberty to ask. Without some randomness we could never learn, so it is right not everything can be certain.



# THE MINDFUL MONA LISA: ETHICS AND SUSTAINABLE NORMS

By Max Herman  
Thursday, 11/03/2022



This month's [image](#) by Leonardo, offered as aesthetic context for the ninth celestial sphere of knowledge (that

of [Ethics](#), symbolized by the energy field of the *primum mobile*), carries an unmistakable message and direct warning about Anthropocene cultural norms and [sustainability](#).

Generally referred to as “A Cloudburst of Material Possessions,” sometimes dated circa 1506-1512 (i.e. contemporaneous to the painting of the *Mona Lisa*), we find the below [explanation](#) in the Royal Collection:

“A sketch of a torrent of objects falling to earth from stormclouds – rakes, ladders, lanterns, bagpipes, shears, spectacles and so on. Written below is the lament ‘*Oh human misery, how many things you must serve for money*’ [italics mine]. Leonardo was fond of allegories of human folly, but what might be a straightforward criticism of materialism is here complicated by a lion prowling in the clouds at top left, as yet unexplained.”

Clearly the lion is a crucial element, and one not so difficult to interpret [allegorically](#). (Punning on his own name, Leonardo often uses lions as stand-ins for himself.) In “Cloudburst” the lion is somewhat above and aloof, observing as an artist or scientist would, but aghast and wondering how, if at all possible, to stem the [deluge](#). Like the lion on the shield in October’s [image](#) this figure is also a protector of sorts, profoundly affected by and concerned with the ethical import of what he observes.

Consider too Leonardo’s [parable](#) of the Lion from his rich compendium of instructive animal fables:

“This animal, with his thundering roar, rouses his young the third day after they are born, teaching them the use of all their dormant senses and all the wild things which are in the wood flee away. This may be compared to the children of Virtue who are roused by

the sound of praise and grow up in honorable studies, by which they are more and more elevated; while all that is base flies at the sound, shunning those who are virtuous. Again, the lion covers over its foot tracks, so that the way it has gone may not be known to its enemies. Thus it beseems a captain to conceal the secrets of his mind so that the enemy may not know his purpose.”

Ethics and sustainability are fundamentally necessary to any social group but are particularly important during the global transformations confronting not only today's society, economics, and politics but the planet's biosphere and climate itself. Adaptive survival requires us to transcend [science](#) as mere extraction, production, and consumption; this in turn demands the ethical [transformations](#) possible through art (which itself can be misguided by an aesthetic of consumption, profusion, greed, and false scarcity).

The recent JWST image of the [Southern Ring Nebula](#) beautifully evokes the image of the *primum mobile*. Embodying the motive force which drives all movement in the cosmos, [Leonardo](#) wrote about such a force as today's physicists define energy. In [contemplative](#) and imaginative life, which includes the ongoing progress of science and art, Leonardo [suggested](#) an analogous source of movement comparable to ethics: the [awareness](#) of consequences, possibility, and conscience which impel both responsibility and the actions we take in response to it.

It is difficult to imagine a simpler or more powerful depiction of the Anthropocene ethical landscape, and our human role within it, than Leonardo's "Cloudburst": a strikingly modern and compelling image that combines

visual, verbal, and philosophical [imagination](#) – ideally in time to help humanity realize lasting solutions.

Next blog: the origin and nature of sustainable life

There's a word for passing in zen, forgotten now,  
*Yugen?* No, passing's *aware*, bittersweet.  
*Yugen* means ghost, the careful hidden feet  
 Of what you cannot see, no matter how.  
 A bridge fords rivers with its stony prow  
 Unmoving, centuries past and hands compete  
 For what the crossings' ethos may secrete.  
 The wheel of angels turning never bow  
 To just one place or anything that's still.  
 Amid Parisian quintessential weight  
 "*De l'eau ancien*" departing in a breath  
 The portrait I have flown to see – fulfill –  
 May not be anything, much less a gate  
 Of diastole emerging out of death.

It's weird, when you try to look at the *Mona Lisa* in the Louvre, where I am now on the patio,  
 you can't see it. At the closest point you can get to it you can't see there's a bridge. It is smudged as if  
 with soot and doesn't appear to be smiling. Cleaning it like the *Saint Anne*, which looks original, makes  
 sense to me. What you can see, as you crush yourself in amongst the tightly crowded river of bodies, is  
 people's phones and people's faces with the *Mona Lisa's* face on the phones. Or if you see the back of  
 someone's phone, you see their faces large with small ML in the background. If the *primum mobile* is  
 Ethics, how is value being apportioned here? Parents blessing their kids with a photo of art appreciation  
 and togetherness – a real smile that is often very affecting.

The braided silicon of these picture-machines has replaced the painting.

In such a quandary, we might ask ourselves what is the message of the seventh noble truth, for  
 chapter nine, right mindfulness? I send self-portraits of my salad to family too. We all want to exist, and  
 to matter, even if just a little.

Federalist Nine says Europe, and Greece and Rome, found fleeting moments of a “fabric” or “portrait” of goodness and right. Hamilton wanted to avoid the constant fighting and torturing of Europe and create something further: a “foundation,” he calls it, like a building might have.

I touched the river here with my hand, climbing down a ladder by Saint Michael’s bridge, gratefully, *comme soldats victorieux*.

*Ce matin je suis dans le Louvre, avec mon croissant et café. La vie est bon et le soleil est dans la ciel aujourd’hui.* I’m eating at the affordable café – *le café affordable*. One knows the Louvre and crowds, their airport-like qualities, but they are as it has likely always been with crowds and peace *depuis la jour premiere*.

*L’amendment neuf dit* there are additional rights not to be excluded – *les droits additionales*. “*Oui, j’ai une blog. J’ai une théorie selon laquelle la Joconde est une allégorie. Le pont est la flux de l’histoire.... La Joconde Consciente, la Comédie de Léonard.*” I am awkward and because of that often rude – *gauche*.

Dickinson wrote “Of Immortality / His Strategy / Was Physiognomy.” The ninth eclogue has the same shade of intertwined grapevines I had where I was at the river in October. Maybe the war is ending? All the war?

The ninth Mosaic dictum is not to bear false witness. This is just hospitable, making *Il Principe un exemple parfait*, perfect example of the House of Atreus spoiling things.

Why do the colorful bean bags here rise up like a ladder to heaven? Above the stone and pyramidally central they’re like additional rights.

We just saw a play about this within which there was a play called “*Pursuit of Happiness*.” I’d like to be less rude, and less awkward. I admire the Louvre and the crowds thronging it! Maybe the

great eagle of *Purgatorio* IX will swoop down right here to get me. (Today can be my day of seven P's.) *Inferno* IX mentions the veil of art at the Gates of Dis much as *Purgatorio* IX mentions the imagination's approach closer to the divine before waking up in the morning. *Paradiso* IX names bad kings and good, and Leonardo's key concept of Ethics – Virtue – differs a bit from Dante's Justice. I can shift this same way perhaps, being old now.

Summer's the most plentiful season in terms of time. You keep things watered and seek the shade in mid-day. Faction bred millennia of war! Can we sustain anything else, any containment? Right mindfulness mustn't be dark only, and didn't Dante's *Eclogues* trust the opaque ordinary?

My apologies for the gloom! I'm not quite out of danger yet, have jet lag a bit, and my dreams have gotten weird. However *Paradiso* IX says truly why trouble my brows on emptiness? Or Leonardo, the riches of the body are vain. *The Prince* says laws and arms are the foundation too, only speaking of arms, and that one's own are best. The ninth web logs of 2020 and 2021 I can't recall, maybe "What's in a Name" with the angel's hand, seeing it one last time today?

I saw the water fountain leaping up this beautiful morning by the pyramid. (You enter by a kind of hall like a pyramid's.) I left a €20 yesterday; rude? Water leaping up like the fabric bubbles at the center line. Is it not and every pyramid a ladder and a bridge? Many bridges here, pyramids and helical stairs. One finds things a certain way then tries one's options, one at a time. Even the swirling sculpture-beards were chipped out one shard at a time. Beatrice is mentioned; she dwells in the beyond. Kouroi smile too. Isis is friendly.

I do get agitated about the portrait trapped behind the glass, but what is my portion to do about it? Genius of a person, spirit or genius or fabric of a place – never say network because people hate it – they all have their momentum, inertia, gravity, and friction like webs. And do not these very webs hold up the pyramid itself like strings and strands? Maybe the latest great war, *grande guerre*, ended literally

yesterday. There may be another one starting today but it may be a fairly peaceful one. It could well be a tolerable path upward to sustainability and green energy – *énergie vert* – just as the First Cold War funded the Digital Revolution. All pols have read their Machiavel as well as their Keynes.

Leonardo said, the painter-poet's garment in the future will be decorated as they *choisir*, and they will have light brushes with bright *couleurs*. Yesterday evening I walked down la rue Dante. I'll buy a hat and scarf. I can't go in until I finish my water and the seven P's are PEGSWAL!

The third ending image is bridge. It doesn't mean just one thing, but has what you might say Calvino considered in *Multiplicity* which was like *Inferno IX* the land of Medusa and the Erinyes. (No, petrification was in *Lightness*.) I feel petrified today perhaps because yesterday I learned, amid beautiful sunsets from the *pont de l'art*, of some truly tragic French history. I knew vaguely but it wasn't in mind like *Voina i Mir* were. Of course very little is more petrifying than my own US history, or as Gadda wrote in *Multiplicity* the vortex of *gnommero* which is guilt and drives tragic confession a la Burke and Goffman.

At a window of an airport again I can watch the fog outside, very thick but merciful over the airport like nature visiting. Holub wrote of grass, Larkin a coastal shelf, fog is my friend today same as book 1 chapter 2 dealt with grapes and the 1-2-2-1 pattern of embroidery. Blog nine of 2021, "Symmorphosis in All Things," could apply if guilt is physiological. "Lycidas" by Milton was subtitled "and by occasion foretells the ruin of our corrupted clergy, then in their height," and Lycidas is in Virgil's eclogue IX. (There's a green metal god Mercury at the Louvre who looks light and in flight, in motion, which is kind of like the motion and fire of the *primum mobile*.)

I am personally far too guilty of so many things my own corruption is my proper study. The question of Machiavelli applies to me as well – is it right to say nothing is evil if it benefits the state? Medieval use of torture may have gotten more efficient and widespread in the twentieth century not

less – the nineteenth too had horrifying invasions. All I mean to say is I disagree with Machiavel that serving the state “makes it OK.” It’s not complicated – something can serve the state, or be profitable, and still be evil. Evil doesn’t evaporate and disappear even if as Machiavelli says you avoid small harms to people and only commit large total ones. Man hands on misery to man but Leonardo’s portrait heals, moves forward, from worse to better by its “*quitissenza*.”

I never wanted to think or talk about alchemy in this. It’s superstitious, convoluted, nonsensical, a devilishly well-done quagmire of fraud. However it did have to be mentioned because I did stumble upon bridge-alchemy references regarding Giorgione’s *The Tempest*. It’s plausible context even if Leonardo mentioned alchemy only to reject it. Certainly my thoughts after returning from France, presumably to look at color and line, are drowning in images of stony sleep, barricades, grapeshot, and guillotine. Federalist Nine wants to move on from all those centuries of European war. It says despite Europe’s “stupendous fabric” and “portraits they have sketched” there was not yet a foundation on which to build what Washington in my passport calls “a standard to which the wise and honest may repair.”

Without doubt the USA is guilty too of what Europe is and was, and both of what their enemies and victims were and are. This is Medusa, from *Inferno IX*, like the horrid Erinyes of Aeschylus the horror that freezes all. Don’t look at it directly! But do look at it, look at it you must. Rather, Virgil says, look with the central ray of your eye at the messenger from above who hovers mightily across Styx and breaks open the gates of Dis. Eisenhower was right about humanity crucified on a cross of iron, but by that he didn’t mean we could abolish all laws or arms.

So the change, what is the change, what way is there?

Leonardo in Richter 1162, which I quoted about the moth, elaborates:

“the man who with constant longing awaits with joy each new spring time, each new summer, each new month and new year — deeming that the things he longs for are ever too late in coming — does not perceive that he is longing for his own destruction. But this desire is the very quintessence, the spirit of the elements, which finding itself imprisoned with the soul is ever longing to return from the human body to its giver. And you must know that this same longing is that quintessence, inseparable from nature, and that man is the image of the world.”

That is Leonardo's *aqua pontica*, his *ethos primum mobile*.

I found some funny random facts yesterday in what Jung calls meaningless coincidence which is nevertheless meaningful. I was noticing how often I wrote about pyramids in France, and how they are used by the Louvre to interconnect cultures from ancient Egypt to the Enlightenment. Since I'm also noticing Hamilton's talk about foundations, that adds Enlightenment rights and reason to Machiavelli's foundation ideas, along with Enlightenment alchemical clichés about ladders to heaven and such I thought as we all do about the dollar bill pyramid unfinished with an eye at the top. I looked it up to see how old it is, that image. It's from about 1776 apparently. The eye is the “all-seeing eye of Providence,” which “approves the work” (*annuit coeptis*), and the pyramid is thirteen layers for the first colonies plus unfinished room for more. Cut and dry, plus I hate symbol-hunting swindlers, so I'm glad that's settled. The “eye of providence” has very old roots and isn't from any secret club (which is good because secret clubs are typically steaming heaps of horse manure). There's no real prior unfinished pyramid. So, all post-Leonardo.

However I did stumble on an alchemy image of the eye of providence floating in the sky called “Quo Modo Deum” or “the Divine Way” which has the floating eye, a steep pyramid, and a broken bridge like the broken bridges in Dante. It says “17<sup>th</sup> century alchemical text?” so who knows who made it, or when, or if there's other stuff like it Leonardo might have been around. Of course he felt alchemy was horse dung scientifically but he and many knew like Jung it was a way to talk philosophy and psychology without running afoul of rules against mixing science and religion on pain of death. As the

book about masonry I bought at the semi-defunct bookstore chain circa 2000, the cheapos in the entryway, but didn't read, says: "free spirits have always found the means of sharing and spreading their ideas. This may involve veiling them in allegory or wrapping them up in thick layers of lies and absurdity."

I didn't listen to my four songs while writing in France, and it seemed somehow painful.

My four 2022 songs being, again, the Labyrinth, Terpsichore, Invention, and Offering, I internet-searched yesterday for eye symbolism in the Renaissance. (One fact, they had these very popular books chock full of obtuse symbols and sayings – a way for people to get ideas outside orthodoxy. That was richer turf than we can perceive now, popular and profuse.) I first found Bensimon's article confirming eyes had lots of symbolic and emblematic use then, and Bosch used the all-seeing eye image contemporaneous to the *Mona Lisa*. So it was out there, in the mix, is all I'm saying. (Why expect to find a spreadsheet handwritten by Leonardo of all his influences, each where when how and why?)

Very helpful though was Bensimon's shift right away from Bosch's eye image to Cusanus (1401-64) who based his philosophy on *nexus* and *relatio* (which are like bridges), and on "settling downward" into the divine fabric if you will just as I have been trying to mention. Bensimon also uses "secrete" to describe Cusanus' vision of bridging, almost like how a spider secretes a web without a light: "Consciousness thus becomes aware of its own secretions, its own thinking processes of forming relationships."

Ethics or what to choose when choice is possible is a key focus of people like Cusanus, but also artists and scientists. Shakespeare talked about alchemy with great derision, but also with patience for its clichés about human change for individuals (changing lead to gold, worse to better) and culture (longevity, consistency). I also yesterday found the Cooper article about Saint Cecilia, who circa 250 C.E. called playing music her "philosophers' stone" which built, as it were, her means of progress toward

divine reality. Bensimon says for Bosch and Cusanus sight “signifies motion,” as in our Time-Form-Motion-Mind contrivance and the “multitudinous” crossings or per-\* which constitute experience. Bensimon mentions Leonardo once, as favoring “simultaneity of perception” “at one glance” i.e. an image, over time-bound music. Bensimon doesn’t mention bridge at all, but eyes clearly bridge moving information. Must re-read. Did only Montaigne call for settling downward, inward, into self? Did Cusanus favor experiment and experience, or did I dream it?

Campbell’s essay calls Giorgione’s *Tempest* Lucretian, moving elements.

I could go on and on about Cusanus, Nicholas of Cusa, who pre-Leonardo thought and published widely much of the basic philosophy I’m attributing to the *Mona Lisa: relatio* and *nexus*, a vision of “learned ignorance” (*De Docta Ignorantia*) beheld during a sea-passage, “Of Conjecture” (*De coniecturis*) praising experimental speculation, *De pace fidei*, Ovidian isomorphism, and as they say much more worth returning to. But Campbell must be mentioned just as urgently for his idea, which I found the same day as the Cusanus article on eyes and Bosch, that Giorgione’s *Tempesta* is best understood Shearman-like in the context of *studiolo*, a kind of library or party room for creatives (like Pontano, Mantegna, or Landino) where they would talk poetry, politics, you name it, all together in the midst of paintings and music on a recurring basis. It’s a good article with much to recommend it and I think more real and true than the “Giorgione believed in alchemy” line. They may have used alchemy jargon sometimes but their real belief was likely in Lucretius, which was real science and as such became totally illegal in 1516 about ten years after *The Tempest* was painted.

Not unrelatedly, I also found on Wednesday Jones-Davies’ article about alchemy in Shakespeare (“what is this quintessence of dust?”) and how he talked about it while not believing it. Sometimes talking about something is the ultimate way of disbelieving it!

The real importance though – it was in fact Montaigne not Cusanus who cited “settling downward” to awareness of the divine, though Cassirer does write of Cusanus “Now we have a negative theology together with a positive theory of experience” – of Giorgione’s *studiolo* to our almost-finished work or comedy is the bridge. Bensimon – I mean Campbell – doesn’t talk about *La Tempesta’s* bridge. (It vaguely resembles or references the obscure epithet of alchemy *aqua pontica* but that’s like the wind and Campbell omits it.) He does talk about the “wandering exile” in Lucretius who leaves the corrupt, blind city to encounter nature and one’s own direct experience experimentally. I saw some pre-Leonardo paintings in the Louvre with bridges out of a city into the countryside. But there’s no bridge in Lucretius either.

Therefore settling downward, as I was doing before being interrupted by Montaigne, as if gravitating upward, down through the sphere of ethics and right mindfulness we call the *primum mobile* I see clearly that there is no tidy cliché about bridges Leonardo was quoting or bringing by pastiche into his portrait of the universe. This makes it not a medieval shorthand for anything specific or set in stone but vague – *vago* – also Italian for beauty in *Six Memos*, and in- or omni-determinate of cause like Gadda’s *gnommero* or skein of yarn, *groviglio* or *garbuglio*, in *Multiplicity*: which is to say, a totally modern image which chooses both its basic form and its associations consciously of and naturally in its choosing. As an engineer by training and Joycean in scope Gadda is a recent simile of this but Leonardo did it too.

What kind of concept is this moving bridge, which moves even though static in pigment? It is like the motion Cusanus saw in a painting he described – before Leonardo was born – in which the eye follows you around the room seeming to move with you, and also what Cusanus saw in the polygon of increasingly many sides, within a circle, which both moves and approaches stillness too.

Most importantly, I am not claiming Leonardo copied and cribbed his bridge from Cusanus. He may have chatted about Cusanus with the geometry expert he drew shapes for, or he might not have. The point is, this kind of idea was well and truly out and about then. It should go without saying, but some demand the equivalent of a dated receipt before they allow any pattern. This is not how nature and the universe work.

Giorgione's bridge of lightning is not broken like Dante's, but an apparition, because he chose it to be. Symmetry reverses easily in vernacular which is why Dante rejected the grammarian. Leonardo's bridge returns the eye of the viewer in motion to the garment, which is to say to the body, and carries with it all of the natural world. Leonardo is not aping Cusanus, who said images cannot capture this motion but little did he know....

*De pace fidei* bridges faiths.

However to settle downward into the fabric of the present which includes all causes and all possibilities, past and future, one must allow right mindfulness which is not striving. This is basically chiasmic, like how the speed of logic by Mercury and Thoth becomes self-aware in the sphere of ethics by conscience. Hariman explained every chiasmus has a bridge and a return. We saw flocking robins in early snow again this week, after another election went well. I passed my hand through the empty air between the stone and the inverted pyramids at the Louvre. Sustainability – City – Church – Machine; Indigenous – Ancient – Medieval – Modern. Jung's alchemy chapter uses "experience" forty-six times, and "bridge" no less importantly four. The bridge carries our eye to the garment, the body's posture, and thence to our own vitality and viscerally. This chiral mirror, experienced, fulfills the bridge of the work just as the proper name unveils it.

Campbell quotes Elkins rightly on "the *Tempest* literature as a case study of art history's unease" with the veil; yet Beatrice provides sight when earned. Knowing a work's name only reduces it if we

reduce art to naming, which we must not. Naming a work aright, after long effort, is a transformation but not an end since bridges go both ways.

Also true: Leonardo's *studiolo* was not Giorgione's. Usually he was the only person there, and maybe even still is but maybe not. Dante and the eagle were burned in flight. Fallen angels are like rebel hands, crowding the sky. By hand we prepare for our decisions. Braccresco, Mantegna, Solario all have distant rivers, bridges, and cities circa 1450. I also saw Maddrell's gardening Bronzino – *noli me tangere*. Raphael's Saint Margaret triumphs by feather-touch, and what I thought winged Isis was Samothracian Ma'at. To be seated before one's counterpart, each seeing, is perhaps the main passage and one which naming does not replace if done mindfully.

Institutions defend of necessity yet need not always petrify. If one rules by evil, even if no one knows, one becomes one who rules by evil. I have a cold yet may use all my strength. Like double-lotus, warp and weave, central ray, inhale, sitting all moves.

What I thought originally might be an "L" at the end of several of Leonardo's Paris manuscripts (like M) is now, I see, a "Q" matching the symbol for quintessence. Whether to care I cannot decide. This essence is however clearly fabric-like and tangent to the bridges we engineer. For example, think in terms of landscape – bridge – garment – sitter. Cusanus wrote of many things Leonardo also did: "the earth is a star like other stars, is not the centre of the universe, is not at rest, nor are its poles fixed." He invented pulse-checking by use of klepsydra; he acknowledged the consent of the governed; he respected "the coincidence of opposites" and how "figures may be deformed and transformed" i.e. geometric morphism. All of this or most was before Leonardo was born. Of experiment, Cusanus wrote: "A conjecture is a positive assertion in alterity that uses truth as a participator."

What Jung called "the bridge of the spirit," about ten artists and scientists who survived over the morass of history's ignorance, reflects the "extraordinary overtones" Mazzotta knew Dante ascribed to

the word *esperienza*. And exactly when art and science began to emerge as peers equal to church and state their suppression also emerged, from Archimedes' death to the alleged poisoning of Mirandola by the restored Medici. How could one clearly or loudly say we should follow *Esperienza*, experience and experiment, as teacher, guide, and *maestra* in such hostile terrain? Doing so caused ethical dissonance for those who viewed science and art as threats to church and state, tempting death.

Leonardo thought money mostly waste, for fillers-up of privies thinking luxury made them more acceptable to divinity. Real value accrued in things of the spirit, in works of art and science which did not "die with the worker." Our transformation to valuing art and science as equal peers of state and church is not complete and won't be so even after we name the bridge-garment-experience allegory of *La Joconde*. Yet with unveiling the destination will be possible, and without it hopeless. Gödel and Habermas knew modernity's incomplete. Cusanus also discussed the harrowing of hell, tour of afterworld, *descensus* as a process of intellect, the inner bridge.

Under a view of the universe as metamorphoses everything has a before, during, and after. The bridge in the *Mona Lisa* is not alone; it emerges out of nature, crosses a river, and then becomes the garment. It points, the bridge, to related ideas elsewhere in Leonardo's writing but is also a pure form operating within the composition's geometric and color transformations. When it becomes the garment, which is also ethics, we feel it as a worn fabric as closely as can be. Like ancient Greek sculpture, the fabric articulates the primary joints and posture of the figure; we become and experience the allegory immediately.

I cannot experience this for you visually, verbally, analytically, or physically. All I can do is point to it. I almost always feel I must do more than this but thankfully not quite always.

Bensimon in describing Bosch says "consciousness *links together* the heterogeneity of life's events through ceaseless circular movement" then quotes Cusanus: "Movement ('the *connexion*

between form and matter') is compared to 'an intermediate spirit' called '*atropos, clotho, and lachesis.*'"

Leonardo calls *Esperienza* "the interpreter between nature and the human race" and Cassirer says "A glance at the early passages of the *Idiota* will show just how close Leonardo was to Cusanus in the *formulation and foundation* of his methodological principles." Capra wrote "meaning is experience of a context."

Campbell states clearly the danger of repression which attended certain explicit statements in Giorgione's *studiolo* same as in the coffeehouses of 1750. One must temper one's ambitions. Further, since all ethics is choice each person can only do their own and even that not all the time. Rapidly running out of time in this book perhaps pointing quietly, like *La Gioconda* to her garment, is the best kind of bridge. Yet absent persecution ought we fawn over secrecy? If yes how much? Naming *Esperienza* constricts the painting no more and no less than does naming Apelles' *Calumny*. Remember not a single scholar in the last five centuries has proposed this title, not a single one in all this time, bridge and garment aside!

Conservative and progressive, experimental and orthodox, both must settle downward into the portrait's reality, its "*necessità.*"

Decretals certainly will occupy the most of us, and often perhaps like gossip that's completely OK. But it's not always. There's an opposite to the little dram of eale, and unless you want the latter's results you must seek out the former by choice. History has both but it sometimes seems like more of the eale than the other. Transitology, or the study of how nations move from one kind of government to another, is a term I learned lately. Perhaps authoritarian states can somehow embrace democratization as a win-win, prudent yet noble too? That's like a dream come true. They view democracy as a trick though, a ruse, and monarchy (or more monarchic monarchy) as simple defense, honesty, and love. Other things can be learned too though.

There is no medicine wheel element this chapter but being November, the ninth month, it is Native American Heritage month. Guilt in this regard is likely the worst guilt of my land of living, the land of waters, *l'etoile du nord*, indelible and ongoing. I hope that Cajete's heart way, which he mentions as having elements in common with bridges I believe, can be a guide to restoration. Or Northrup's *Akinomaage*, or Nelson's "medicine line" might be. However, hearing detailed accounts of settler atrocities toward really all indigenous Americans is brutal, no less than Leonardo's "Of the Cruelty of Man." It is yet to be determined if ethical adherence to *Esperienza* can bring about the healing and restoration which I claim it can, but something must be attempted and I don't think anything not based on *Esperienza* can plausibly suffice. That's also why Leonardo didn't want to use words, which are always only in one language, and why they do not suffice arguably *De pace fidei*. Northrup writes clearly, "what the Creator lets us see."

One form of right humility or mindfulness may be to consider whether modernity has even begun yet. As an idea or projection yes, but as reality? Perhaps it only began in 2019, five centuries after Leonardo passed as he indicated might be the case. Without crossing the bridge it might still be most honest to say we are in the medieval age!

Like an energy field which moves all events involving choice, the ethical realm permeates humanity. Our decisions are influenced but not controlled by all we have experienced before, and influence but do not control all we experience after. Like water molecules in a flowing river humans interact quite a bit with each other in both pattern and randomness. How can ethics evolve?

Frankly the bridge-garment-experience structure of the *Mona Lisa* is obvious and self-evident: there's nothing that needs to be proven. Just look at it. It's designed simply and naturally. What one should do after seeing this structure is also clear: point it out, using the vernacular. (Leonardo warns against elaborate, arcane, or luxurious expectations.) As for politics, that great machine which some call

humans' very nature, its motive for power – state with a bit of church where needed – may be the most stubborn counterforce to the evolving hope of ethics. Why? Machiavelli states it well enough: conscience is a hindrance to power and the golden rule limits one's options. Ergo cul-de-sac prevails in great prevalence.

No offense to Europe or Europeans and European-Americans like myself, but the reality of European ethics may be best described over the main stream of history as the Roman Empire in Christian costume. This is ironic but cannot be dismissed lightly. Without neuroplasticity through art and science, able and allowed to change one's being, the outlook is bleak. Harrison doesn't mention Giorgione or Cusanus (though still active he might yet) but he does highlight the pre-war bridge to Crimea as a bridge of aggression and destruction.

Overall politics is not in its worst possible condition however. Democracy generally respects *Esperienza* better than monarchy or autocracy, and it has life yet. Oversleeping in quilts, even of despair, will not burst joy's grape or be among her cloudy trophies. Pope Francis knows Dante's *trasumanar* and might be persuaded to listen. Children have consciences from day one. Marxism lacks credibility and consistency. People still read and converse. The opposite of all these is also true.

Not to bear false witness against one's neighbor is perhaps more important than I first thought. Is this because ethics are communication, a field, bridge and garment?

*Six phrases pour les ponts et les fleuves de Paris*

1. J'ai une théorie selon laquelle la Joconde est une allégorie.
2. Le pont symbolise le flux de l'histoire de l'art, de la science et de l'ingénierie.
3. Le vêtement symbolise leur état actuel, à la fois porté et tissé par la figure.
4. La figure est une allégorie d'Esperienza, qui signifie à la fois expérience et expérimentation, que Léonard personnifiait comme "la mère commune de toutes les sciences et de tous les arts".
5. J'écris un blog à ce sujet appelé "la Joconde consciente."
6. J'en ai presque fini avec un livre basé sur le blog qui est une trilogie intitulée "la comédie de Léonard."

Yesterday I half-heard on classical radio “the ladder to heaven is within you” regarding the piece just played. It could have been “stairway” or “inside,” an instantly fleeting fragment. Internet search found nothing helpful, but today I’m reminded of *Purgatorio* IX and *te Deum laudamus* now heard and now not. Europe’s history is also Christianity in Roman uniform – agreed. Warp and woof negotiate; the lover becomes the thing beloved, and if the garment is base....

Bridges have foundations too. What is it though, really? More a process or sequence of events than object, every structure built by humans originates in experience and experiment which then in turn flow from it. Yet they are not identical. The wearer is not the garment nor is the weaver. The hand and finger-touch, arc of veil, smile and eyes and embroidery demonstrate this. Beatrice made Dante’s journey possible even in spirit form.

Yesterday I also found vague remnants of the Codex Atlanticus 65 verso, trying to parse the words of RCIN912282, in the copy I bought by chance of Pedretti’s *Fragments at Windsor Castle* which he signed for Ladislao Reti 23 November 1957 in Milan. The clepsydra in question apparently drives an automaton – a robot Leonardo made – in the shape of a person who strikes a bell at the appointed time.

Is not the highest and truest form of ethics love, which moves and connects all that is? Like the *Cloudburst*, one tires of accumulation but never, as Leonardo wrote, of being useful.



# THE MINDFUL MONA LISA: NATURE AND ORIGIN OF SUSTAINABLE LIFE ON EARTH

By Max Herman  
Wednesday, 12/07/2022



This final blog for 2022 corresponds to the tenth and highest sphere of Dante's [celestial](#) diagram: the [Empyrean](#), symbolizing Theology and the realm of universal truth. This sphere's form is abstract in Dante's *Commedia*, first appearing as a luminous river which metamorphoses into a circular flow, then a giant rose, finally culminating in a point of concentrated light from which all being and knowledge radiate. (Dante experiences this point as an overwhelming [flash](#) of insight which transforms his intellect but cannot be described or translated.)

The image of [singularity](#) which unfurls to manifest the universe evokes modern [physics](#) like the Big Bang theory and resonates visually with the star-forming [helix](#) recently imaged by the [JWST](#). Quantum mechanics similarly infuse all phenomena while possessing a hidden and unfolding character rooted in [Heisenberg's](#) uncertainty principle and Gödelian [incompleteness](#).

The Renaissance concept of *theologia poetica*, which animates the [Humanist](#) tradition up through Vico's *Scienza Nuova* and thereby even moderns like [Joyce](#), denotes a realm of philosophy regarding humans and [nature](#) located outside religion: what we today call modern art and science.

[Nicolaus Cusanus](#) (1401-74), a clerical figure unlike Dante and Leonardo, wrote nonetheless about scientific method, human ethics, and the cosmos. Historian of science Ernst [Cassirer](#) (whose

concept of *animal symbolicum* might be usefully refined as *homo reticulum*) considered Cusanus the earliest true modern, [writing](#) “a glance at the early passages of [Cusanus’] *Idiota* will show just how close Leonardo was to Cusanus in the *formulation* and *foundation* of his methodological principles.” Parallels range from Cusanus’ focus on *nexus* and *relatio*, his treatise *Of Conjecture* praising experimental method, and his concepts of “learned ignorance” or the “coincidence of opposites,” to asserting the earth is not the universe’s center and his call in *De Pace Fidei* for commonality among all faiths. He even [celebrated](#) the power of a painting whose eyes seemed to follow him around the room decades before Leonardo’s *Mona Lisa*.

The early modern and indeed ongoing pursuit of a *theologia poetica* reflects our increasing [awareness](#) that human activity both shapes our environment on earth and has the power to destroy it. Modernity realizes that sustainability is a human task (as in Leonardo's *Of the Cruelty of Man*). The continued existence of nature -- the origin of its future -- is therefore implicated across all levels of culture, imagination, and [design](#).

A suitable final image to unify Leonardo’s message, as explored over this blog’s entire three-year cycle, might be the complex and enigmatic [RCIN 912282](#). Its understated assemblage includes a profile of a youth with river-like flowing hair and a contemplative gaze, allegorical emblems of rigor, resilience, and perseverance (featuring a [compass](#), sundial, waterwheel, plow, [lantern](#), and the ribbon of [Fortuna](#)),

and a chain-mail garment of ivy to symbolize longevity. The reverse side shows multiple detailed designs for a [clepsydra](#) or water-driven timing device which powers an automaton in human form (see [Pedretti](#) on [Atlantius 65v](#)) to strike a bell, and a structure to house the mechanism. A human head and shoulders are placed atop a water-clock.

On this single sheet of paper, Leonardo's interconnective imagination explores a multiplicity of [Anthropocene](#) fundamentals: machines that power knowledge, gradual development of the arts and sciences, the urgency of planetary stewardship, and the fragility of both [natural](#) and human [systems](#).

“Time is the consumer of all things,” Leonardo wrote, so in a world seemingly frozen in brutally irreconcilable [conflicts](#) how can the necessary miracle of sustainability survive? Leonardo knew the power of rivers cannot be opposed by brute force. His work is dedicated to the [hopeful](#), resilient, defiant, yet [fragile](#) potential to find a sustainable course through small, achievable changes within our human capability, even as small as articulating a single word – *Esperienza* – and applying it to a single image: the *Mona Lisa*, *La Gioconda*, universal portrait, guide, and transformative mirror for a [sustainable](#) age.

#MonaLisaEsperienza

#BridgeGarmentExperienceHypothesis

#MindfulMonaLisa

Next blog: March 2023

Above my head the way is treacherous  
 Once titled zenith, chaos now prevails  
 Lucretius' ship meanders; tattered sails  
 In random fits and starts disorder us.  
 We live in fractured pieces, gangrenous  
 Our flesh unhealing round protruding nails  
*Amor's* consistent path or weave bewails  
 The liquid boundaries our life-cycles suss.  
 Cusanus wrote theology means thought  
 That runs so it can see. Each heartbeat moves  
 The river of our life, a bridge and tide  
 Of time to bring together what it ought  
 If life is to remain. Thus nature loves  
 The all; to join each breath each may decide.

*Purgatorio* X mentions the great example for our purpose, *visibile parlare* or visible speech, in which the historical persons in pictures of various virtues carved on the cliff walls by divine power itself seem to Dante to audibly converse with each other. He even thinks he smells the incense, or does smell it in a sense but in another not really. By gaining insight to virtue those in *Purgatorio* gain exit from *Inferno* in which in canto X we see the damnation of Guido (foreseen) and Cavalcante Cavalcanti for favoring Epicurean ideas about the soul. *Paradiso* X discusses Boethius and the power of Fortuna.

Dante may consider the tenth sphere to be that of Creation, which has a different nuance than what Leonardo might call Nature. Having or trying to have hope for modern humanity I side with Leonardo because his view gets to the key issue: humans will turn the planet to hell if we keep doing so poorly. Does the Tenth Commandment not to covet pertain? I'd say yes, and to deny Nature its divinity is to deny the divine its reality – to covet knowledge we cannot, by definition, have. Some call this healthy, a sacred tourniquet for the times, but is it really?

Federalist Ten writes classically on faction and how passion is both necessary and inevitable while still posing a danger to the community in which it appears. Madison compares the problem to air,

which feeds both our healthy lungs and destructive fire. A final element of the Ojibwe medicine wheel from the NIH website is the wheel itself, which also represents the Creator.

*Paradiso X* relates a lot, one of the dense precursors and personal to me, not just on Boethius but light, the interwoven turning of the cosmos, “drive and draw,” crowns, and morphology of imagination while just sitting at a bench. However this morning I read “Aurora Leigh,” page 323, by this chapter’s poet Barrett-Browning, in which the narrator talks about her mother’s many-faceted portrait’s face, heart, and hands, being Psyche, muse, ghost, sprite, Medusa. Notably the saint of *Paradiso X*, who lived until Dante was nine – the year he met Beatrice – was made a saint in 1323. Likely all too much of these wrong numbers.

Freezing cold today, Great River icy yesterday, low and sandy, it is still however autumn till the solstice soon and growing darker. Alberti, perspectivist and father of cryptography, took his life’s motto from Eclogue X: “Quid tum?” which means “Then what?” which is a funny saying and a good one. He put fifteen squares on his famous, very lucid, church façade. May we call such number-jangling right absorption on the Eightfold Path? I’d sooner call it wrong absorption somehow, but maybe some of it is right, right but only one part of the whole. What is the other part on the *marga*, path, final noble truth? Not to crave these numbers, to faint over them, is the answer Alberti coyly nudges. Of course Dante uses light to mean the invisible All!

Blog ten of 2020 points us back to mindfulness very like the last page of the Heisenberg does: meditation may be the teeth or yoke of all morphism and kin to Lucretius’ *primordia*, first threads, like the essay by Johncock, quaintly in all caps: love, lifecycle, weaving, liquids, boundaries. Like book one chapter one, I swore to try to be honest! Blog ten of 2021, “Interpretation and the Bridge of Experience,” means we must hazard the conjecture that the portrait is, literally is, *Esperienza*. Proof other than the word itself can never be, just like the finger-touch points you to what’s next. Dante says

so as plain as he can that the Reader has to “do this,” his scribe-work calls him onward so reader do your part. What then?

Consistency, Calvino’s last Memo for this last chapter, does not exist. However I have felt impelled for some time to try to write it, and recently learned some others have tried. The Tenth Amendment’s separation of powers – of writing powers – has to do with it. (*Delat*, as in *kak dela*, how are you, is from the same root \*dhe- as *theos*, to do or make, which parallels some native American concepts for art and science; Aristotle’s *pathein mathein* is not unrelated.)

The direction for this final chapter, west, means many things but to me today it means later, after. The sun’s rays fall on the west after they fall on the east, and the east is before you cross the Mississippi. The sun never rises in the west and never will. You may not know that Dante’s last book was not about theology but geology, and water, called *Quaestio de Aqua et Terra: Question of Water and Earth*. What more beautiful way, really, of returning could there be? Yes geometry and light but also water and land. An in re Federalist Ten, which is re land measuring, I wrote in college “what about when passion is needed?” You never escape the labor of people being good or not good, never solve it out of the equation, so even the perfectly middle extent and proportion of a democratic republic – necessary groundwork as it is -- really only leaves you back at square zero. Hamilton was, thankfully, more anti-slavery I like to think.

Which brings us, finally, to Leonardo’s final painting the *Saint John the Baptist*. In a literally cruel twist of repeated fate, the double kind Leonardo delineates, my journey to the City of Light to see it was fruitless because it is on loan elsewhere. Truly comic is the postcard I have now on view. Yet still I know he wears no cloth, turning and leaning, his finger-touch almost nowhere to nothing and above all smiling. Does it mean anything that Aurora Leigh’s mother’s portrait’s hands, face, and heart appear on page 323 of the 1877 Diamond Edition? No.

The Terpsichore song is such a relief during this writing, a dance, a walk among trees!

I looked up *pathein mathein*, “to experience is to know,” again and found a funny article or chapter by de Jáuregui comparing it to *katabasis* i.e. when a protagonist visits the underworld temporarily. Two old examples are the *Odyssey* and the *Aeneid*, Dante basing much on the latter. They discovered how to do fusion with lasers yesterday, and there was also a news item about how to teach AI good values is tricky because we don’t realize intelligence is environmental and built from something like experience over time which AI’s are not good at. That goes back to what the student at the first *solstizio* four years ago told me, that AI’s cannot do consistency, or as Capra might say they can’t do meaning because they cannot experience a context. This is a bit harsh but the article was a real article in Quanta magazine. It could well be too that without experiment, or a suspension of certainty, one cannot have experiences either. At the very reassuring article I mean lecture about the green revolution, now needed after the digital is fizzling and eating its liver, by Bill Janeway also in 2018 here he noted as an aside that AI’s were so brittle that they couldn’t do a whole lot. Almost as if to say, don’t fantasize about magic robots all because reality needs dealing with for real.

But the underworld, afterworld, afterlife, it is very interesting in a lot of art, literature, and science too perhaps. (Vern Northrup has some great images of fire, *Ishkode*, in his book *Akinomaage*.) I was wondering if Leonardo mentioned it obliquely in his story of the dark cave he was curious about, though also afraid of, and wandered down into to check it out. Can a machine be what it is but also not be what it is in this same way? I think Leonardo was skeptical of this and saw technology as more like a mask or garment, as when he said cruel humans would destroy the forests and oceans then try to fly up to heaven but would be too heavy and crash. What would harrowing have to look like for a machine to achieve experience?

Or what may we do, Reader, while this machine is to us?

Cavalcanti leapt, in Calvino's chosen image of the next 978 years, over the tombstones and ruins to escape the local burghers on a youthful spree. However in *Inferno X* he who leapt and his father were entombed for heresy along with Farinata the great-hearted (though perhaps tinged with irony). Oh so few more times will I write for this, or even anything! Underworld trips do often turn to stone. What tips the scale? Sometimes it's adherence to love, which Dante faulted his friend and mentor Guido Cavalcanti for lacking, that keeps an improbable chance of something yet in play. *Credo in dio crudele*, as has been sung, and even Eclogue Ten says the god Amor conquers everyone and everyone must yield. Maybe Dante felt Cavalcanti lacked an image of Beatrice, which may be sound reasoning, or lacked hope love could make him and the world wise and calm. The last Eclogue, which Virgil clearly denoted last, quotes Apollo on madness and war is all too present.

Sometimes in the brain, I think Sporns said, something may do one thing and then another changing much.

What if the great gravity of a stone city could bring the small sparks, the *spiritelle*, into such high pressure that we might see a change otherwise invisible? Yet in this respect even a small circle in a dry river wash may suffice. Certainly you need some quiet and some calm to see, like the chant at the end of *The Waste Land* which had such drought. A mind of winter? Why Saint John's dark turn to almost nothing at the very end? They keep a marble or a bronze repose. Might there be another last saint, yet another final *maestra* necessary?

What is a great light that cannot be imaged or translated if not vision itself? Aurora Leigh's English father went to Florence to help work on the water system but then he found that wasn't all there is to it. The slight smile is another essential element shared by Leonardo's final, more urgent painting, which he understood was closer to his end, and even the Archaic Greeks.

The fourth and last closing image I wanted to mention for the trilogy is Shih Ho from the I Ching. Like Chun for book one and K'uei for book two, I chose it at random from the Bollingen edition. It means "Biting Through," and the book says:

THE JUDGMENT

BITING THROUGH has success.

It is favorable to let justice be administered.

The dynamic is based on a mix of fire and thunder. One can certainly say "oh this is unscientific twaddle not worth considering," bouncing up from table with a mouth full of bread and cheese, but that would be unworthy. Heisenberg would differ on page 206, and one ought to consider Jung's introduction to the Bollingen in which he reflects on The Caldron. Also there is Leibniz's diagram of the I Ching which he took greatly to heart, and which I had posted above my desk for many a day some years back I know not why. After all, if something occurs, is it really random? Yes and no. The diagram has the sixty-four hexagrams in both square and circle form.

A new image of European philosophy has been proposed lately, *Zeitenwende*, by the current president of Leibniz's home country. Does it make any sense, or have any validity? Many will differ. Yet to me it matters that *wende* is from to weave, turn. Far be it from me to say whether the president is wise, or what he recommends, or his phrase. Yet there is no question he said it, for the most part. Presumably some type of thought or selection went into the choice and that indicates, perhaps, a degree of potential for change or positive evolution. Different perspectives may see more Machiavelli, others less, depending on how they choose to rank and order things. On the other hand, it seems like just a recognition that the course of things sometimes changes and that one such change is now underway. Nothing to be over-certain about, but it is worth consideration.

It also makes me think of rivers, like those which flooded so terribly in the Alps in recent years. Since they are affected by turning human choices are they not partly political?

This book's I Ching hexagram, final one for the trilogy, refers to a criminal not civil case. The question of verdict has therefore a more political nuance and intenser moral severity. This does not however mean cruelty, as one can appreciate reading the ancient commentaries which are quite beautiful. We may also detect clear parallels to Leonardo's self-defense against accusations of ignorance in blog one of 2020:

Do they know that my subjects are based on experience rather than the words of others? And experience has been the mistress of those who wrote well. And so, as mistress, I will acknowledge her and, in every case, I will give her as evidence.

It's a courtroom allegory, because they had those back then too, just one of many Leonardo wrote, drew, and designed. (*Omnes vinculum commune artibus.*) Leonardo knew of what he wrote concerning laws and contracts because of his grandpa. Are not these connected binding words like gears and links too, which drive and draw, machines in their way? Certainly. And like every machine, they do not themselves experience but are made by and affect all that which does. Who did I see yesterday first – Ulysses, Joyce – “machines is their cry.”

And the same allegories of trial and verdict use garments symbolizing knowledge: the knowledge claimed by his accusers and the nature of his own are imagined by Leonardo as garments, the effect or output of the machine. It can only assist and approximate, like calculus, the origin and guide which is in experience. We err in ceding the machine our nature as well as in other forms of cession.

Sometimes making a decision is important or apropos and sometimes not.

Guglielmo Giralaldi's painting circa 1480 of *Inferno X*, “the cemetery of Epicurus and his followers,” has a hill or mountain, climbing which Boccaccio called knowledge, such as might have been the first attempt in *La Joconde* to connect the land to the garment. It's easy to see how a bridge works better by working less, and less like Giralaldi's. *Purgatorio X* also climbs a hill to *visible parlare*. Plenty of hills, rivers, bridges, and traverses abound in Dante images back then, applying to questions.

Applying the hexagram or image to a subject defined in advance of the selection is the idea. Jung chose the topic “is it sound to approach a question using the I Ching?” and then used “The Caldron,” randomly chosen, to respond. Our questions here, *cher lecteur*, are a few more than one perhaps: could Leonardo’s portrait *La Gioconda* be an allegory of *Esperienza*, how can I write about that possibility, and what about all my personal stuff. Leonardo wrote about the *paragone* or debate whether words or images could accomplish more. He led a team representing images in an official courtly proceeding for the Duke of Milan in the 1480’s and surprisingly prevailed. He wrote:

And if a poet should say, “I will invent a fiction with a great purpose,” the painter can do the same, as Apelles painted Calumny. (*E potra dire uno poeta, “io faro una fintione che significa cose gradi,” questo medesimo fara il pittore, come fecie Apelle la calunia.*)

And,

Those who take for their standard any one but nature—the mistress of all masters (*maestra dei maestri*)—weary themselves in vain. And, I would say about those mathematical studies that those who only study the authorities and not the works of nature are descendants but not sons of nature the mistress of all good authors (*maestra di boni autori*). Oh! How great is the folly of those who blame those who learn from nature, setting aside those authorities who themselves were the disciples of nature (*lasciando stare li autori discepoli d’essa natura*)!

I’d like to learn Italian well and especially the Italian for Leonardo’s “experience has been the mistress of those who wrote well. And so, as mistress, I will acknowledge her and, in every case, I will give her as evidence.” What word did he use for “case”? For another day. For today, a decision: *La Joconde* is *Esperienza*.

Not that politics is easy. I found two other poems by Barrett-Browning, “Victor Emanuel Entering Florence” and “The Sword of Castruccio Castrucani.” Italy had great trouble with monarchy, nationalism, and republicanism – Cavour, Garibaldi, Mazzini. Nostalgia disappoints. Calvino assigned work, a syllabus, to US literature in Consistency not flattery, or would’ve.

Almost at solstice, the temperature fell to zero night before last freezing the Mississippi halfway across. The edge ice was walkable within a couple feet but farther out would be certain death. Some sections were glass-clear and in the sun I could see beautiful sand-patterns and even live minnows darting. Sheets of broken ice piled up like tiles or cut paper.

From the Louvre I bought three souvenir postcards in addition to *Saint John the Baptist*: the marriage of Hathor, Tintoretto's old man from the cover of Bernhard's *Old Masters*, and Leonardo's drawing of Isabella d'Este which I couldn't view because it's too fragile and the viewing room was closed on Armistice Day anyhow. Yesterday I noticed numerous resemblances to RCIN 12282. Coincidence?

Another semi-Empyrean image from space is IIZW96 from JWST. Two galaxies colliding, something different taking form. Elements being redirected from the customary. Shih Ho calls for gentleness of judgment but clear action to avoid weakness. Would you want to see a slightly smiling judge or one with a grin? Wrong absorption tends to afflict meditative states because harms accumulate faster therefore the Buddha smiles too. The portrait creates a bond with us as of two peers, in fact making us one and the same. Merciful justice is the balance or mirror. Recall how Leonardo wrote he had to take his goods to humble markets because the grand ones were already busy with others. That's a publishing decision, no? Publishing and archival design.

Of course all that left risk of loss, but do you insist that loss does not threaten? Isabella knew that it does. Her profile and garment closely match 12282. When you sit peacefully before the portrait you seek, as Virgil reassured Dante after Farinata's words of doom, you see the turnings of your way or life's journey. This happens because of ionization, allegorically. Ions are what bind for example cells, proteins, and the like, all such chains and sequences in biology. A kind of bond that is moving in time like those of water, climate, or migration is the mirror. I had to half-smile, which I do when I meditate, while looking at the portrait to sense this. Personal? Yes.

Decision relates to Necessity, a key concept for Leonardo about that which cannot be avoided, but it also means to cut off and therefore informs the ending of books. (Calvino was going to write about that but ran out of time.) The interpretation is clear about deciding the title of the portrait, publishing this comedy for friends if improbably sale, with help from Leonardo's own quotes about never tiring of being useful and "I thought I was learning how to live but I was learning how to die." Shih Ho must also be applied, I'm not sure why, to my personal situation and details which I haven't mentioned much because we all have our own: health, happiness, family, work, conscience. I can decide in favor of, mercifully, *Esperienza* regarding the portrait and publication so the same must hold for my personal affairs: to acknowledge *Esperienza* as my guide, teacher, and *maestra*. One can break down the main points and sub-categories but why? Plus there is literally no time left for that. Aurora Leigh said she didn't believe that to love meant to do whatever helped her husband. Her own work mattered.

To respect and regard one's own experience, and also that of others: this is right to do.

Right absorption, last facet of the eightfold path, could not be better suited for this portrait we're considering. You have to settle and repose, like the snow falling on the frozen river yesterday, into reflection on the universal portrait called *La Gioconda*. There are many threads or first-threads to the calmness but they are consistent, not losing unity or motion. The absorption does not lapse into possession, identity, hostility, or contempt. Body, mind, and spirit all participate in the conjecture of perceiving but do not covet.

I painted a clumsy copy of the image from chapter one of Fortune and Death fighting over the tree. It's awkward and all wrong in parts but I like it anyway. Sometimes merely attempting suffices. It may be said I don't deserve to discover or invent the true subject of *La Joconde* or that no one does. I'm not the best person – *altore* – or the worst, which ultimately may not matter.

Like a harmonic labyrinth, perhaps sometimes experience settles into itself as if moving through its own paths. There is a type of this in death, but also a kind that re-emerges which has been called

“harrowing” or seeing life from the after perspective. Amid these two is daily life making its new capillaries, repairing what can or needs to be, reliant on the permanent larger vessels while they last. This delicate balance of elements belongs largely to what Epictetus calls our choices; or one could say what belongs to our realm of choice is mainly to be found in the processes of delicate balance between permanent and temporary. Contrary as it might seem we are certainly able to reject experience.

As to exhale or diastole being a kind of unfurling, there is a sense in which fullness or fruition is never really complete or in which completeness is never realized. The Ojibwe medicine or healing wheel concept from the NIH website illustrates this in that the wheel itself represents the Creator. The wheel gathers together if you will the elements so that a process can take place. There is a funny parallel in Dante which I learned from a webinar called “the gathering of loves” or “harvesting of loves,” suitable for autumn which ends today. Loves include the love of wisdom – philosophy – in both forms Leonardo named: moral for poetry and natural for painting. We may also appreciate that love, fear, and esteem, in re servants, *maestri*, and *maestra dei maestri*, denote a kind of inclusion. It is veritably unanimous that in *La Gioconda* the sitter’s circulatory system is implicit in her garment, the landscape, and more. Is it so wrong to say that the cardiac muscle combines air, water, earth, and fire into one?

It isn’t always clear why settling downward into awareness and reflection causes fear or pain but one may also see without great difficulty it cannot be otherwise. That’s one of the first observations one has. Why is this kind of inward gravitation a mix, amalgam, and blending of downward and upward? It must be no vast difference from the coincidence of opposites and more than one something in a relation.

Dante’s *Commedia* ends with a massive convergence of science, art, poetry, and visual imagery:

Qual è 'l geomètra che tutto s'affige  
per misurar lo cerchio, e non ritrova,  
pensando, quel principio ond' elli indige,

tal era io a quella vista nova:  
veder voleva come si convenne

l'ïmago al cerchio e come vi s'indova;

ma non eran da ciò le proprie penne:  
se non che la mia mente fu percossa  
da un fulgore in che sua voglia venne.

A l'alta fantasia qui mancò possa;  
ma già volgeva il mio disio e 'l velle,  
sì come rota ch'igualmente è mossa,

l'amor che move il sole e l'altre stelle.

These closing lines describe how Dante was confused at first to see the circle of light embodying the divine, wondering how the human image merges with it, like a mathematician trying to solve for pi. His wings were too weak for that flight, but a flash of light answered what he sought. The force sustaining his "high fantasy" ends at that point, but his will and desire were already turning like a wheel with *l'amor che move il sole e l'altre stelle*.

How could you visualize humanity united with the circle of all being? Leonardo's Vitruvian Man, and other images like it, echo the attempt but remain schematic or geometric. *La Gioconda* however, almost beyond dispute, interweaves all human qualities with nature and the revolving cosmos in vast or infinite visual and thematic depth: "a fiction signifying great things."

The beloved lady in the portrait, like Beatrice in *Paradiso*, has judged her admirer worthy to see her eyes and smile and to converse with her. Yet as with Dante's final experience it cannot be converted by Leonardo or me to you in any form other than what it is, i.e. an experience. My hypothesis, Leonardo's title, the finger-touch pointing, the background, bridge, rivers, veil, eyes, smile, garment, are all only suggestions or indicators. The actual experience of the image must be by all viewers for themselves. This is the final message of the work to each person: go forth, know yourself, learn to see.

By settling downward fully we mirror the image and the universe creates experience, sustainability, life.

How does meditation affect the heart? There are all the complex, symbolic, and figurative ways but also the simplest way: breath awareness slows the breath, which slows our thoughts and heart rate. Perhaps it rids the heart of excess: unnecessary effort, activity, exertion, and haste, which must unavoidably make way for nature to admit experience.

What do I hope for from experience? Certainly I wish to say thanks, and to be a deserving peer of shared good will. Yet returning back from the blinding light of seeing all, partly invisible and inexpressible, is good and right for sure. Even experience beholds nature with reverence and looks there for joyful delight. The *Commedia's* third to last canto demonstrates Dante's regret returning to Florence – which he never did – from the company of a people "*giusto e sano*" up in heaven.

In a sense too, Leonardo's *Saint John the Baptist*, probably unrelated to his *Last Supper*, points to his own heart as well as upward. Maybe the heart is like a knot somehow which doesn't work if it's cinched too tightly? Yet Saint John faced many difficulties, loved the river and being outside the city, while keeping to a consistent discipline if not of metal arrows of rigor, endurance, and clear direction.

The Cathedral of Notre Dame, book and volume of so many times and choices, frighteningly burned almost to destruction before we visited in 2019. You couldn't even cross to the island the usual way but it was good to see it mostly still there. It was never perfect but at least tried for a long time to cast rays of understanding and healing more beneficently on the world. This year I saw it all wrapped up for repair, they say for two more years. It isn't quite the same as nature but needn't be at war with nature either. In some ways my favorite aspects of it are the open square out front, the winding stone steps of the bell towers, and being able to see it across the river.

If one considers *capitolo XXVI* of *Il Principe* amidst all this isn't something missing? The river last night was glorious, frozen snowdrifts all the way across!

Finally after all this time I visited the traveling Uffizi exhibit which crossed the Mississippi by flight or ferry, bringing Botticelli's picture called *Pallas and the Centaur* to the museum here. The name

is debatable, not written on the back, and its first mention yclept the protagonist Camilla not Minerva. One person in 1908 said it's actually Florentia, the city, taming and subduing the centaur by the locks. See how names were jumbled then? And people viewed these images many times, their experience of them moving, lingering, like a film does now. The 1908 article – Feuerbach, Frostinghouse? – says the garment's twining branches are laurel, for Lorenzo, triple-rings on the fabric being Medici, arrows flightless. Is the green cloak laurel too, the might of Florence, textile? More oddly, why the rickety fence?

Less vague or not at all's the centaur's suppression by the champion. See how even then the centaur Machiavelli claimed taught princes was not first? Artists then – wise, subtle, concerned – sought always to communicate the better way to politicians. Soon Savonarola would erupt as well, Botticelli sympathizing, little to nothing working as was hoped. Machiavelli would fall, with great pain, and then to reascend in *capitolo XXV* he advises bullying Fortune. Yes partly he was operating, reading the times, adapting for his own survival (without which none of his books would be). Machismo praised will goad and bait the frail (as then the Medici were remarkably). Yet viciousness is there too, which Machiavelli, duller, loathed far less and leveraged more than Leonardo did.

The *Commedia's* second to last canto's great list mentions "*gran Giovanni*" who suffered multiple labors: exile, martyrdom, and hell (for two years). The exhibit has several Giovanni's, but none smile like Leonardo's. Why? To know, and see, try smiling back. Neuroscience has proved this is very basic mechanics if you will. Or consider: no one calls Machiavelli the George Washington of Italy, but many title Dante so. Leonardo isn't, but what if indirectly he is? Barrett-Browning's husband damned Botticelli's teacher "Fra Lippo Lippi" with faint praise, they say, but there were layers too; at least I thought so. Doesn't real love of Art, Nature, and Humanity, peaceful, at rest, favor equanimity?

John the Baptist said, like the painting, "He must increase but I must decrease," and perhaps for that reason is celebrated around the summer solstice. The final canto in Dante's *Paradiso* compares his

experience to a fading vision from a dream that yet “distills within my heart the sweetness that was born of it” and to know that is “unsealed” by the sun. The three circles of divine being include all “substances, accidents, and dispositions” – “*sustanze e accidenti e lor costume*” – in one “universal form of this knot.”

Human bridges, and many non-human ones, involve choice which may either benefit or harm life and wellbeing. Both human and non-human often involve experience and experiment which will over time summarize or even systematize the former as symbiosis with elements of *caritas*. (Trust is one example.) This branch of experience is neither an object nor a law per se but something unique. The same applies to the portrait we are, one may hope, settling downward in sight of to find more awareness, life, and peace. Viewing the *Mona Lisa* this way requires one to choose the experience and experiment, deciding to participate, regardless of the title.

*Il Principe* XXIV tells politicians to blame not Fortune but their own sloth – *ignavia* – and warns our nature doesn’t think of storms when seas are calm. Fair enough on both counts! Dante adds to his images above “*O luce eterna che sola in te sidi, / sola t’intendi, e da te intelletta / e intendente te ami e arridi!*” (You love and smile!) This sphere is not so different from the moon, after all, in how it brings together and unites. Bernard prays Dante will “preserve [his] perseverance.”

The great cottonwood tree by the river, the river ice which cracks and reverberates like struck metal, small fox-tracks in a line along its bank, all these affirm how life in place sustains itself. Evolution learns also to love by learning to perceive and select, neither object nor law yet real. It’s not always easy to believe realities like this but we can try and even prevail. In such a place my hope and my design are to be able to experience anything.



Appendix A – Quotations by Machiavelli -- [https://en.wikiquote.org/wiki/Niccol%C3%B2\\_Machiavelli](https://en.wikiquote.org/wiki/Niccol%C3%B2_Machiavelli)

Appendix B – Quotations by Leonardo -- [https://en.wikiquote.org/wiki/Leonardo\\_da\\_Vinci](https://en.wikiquote.org/wiki/Leonardo_da_Vinci)

Appendix C – Other quotations -- [https://en.wikiquote.org/wiki/Main\\_Page](https://en.wikiquote.org/wiki/Main_Page)

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